Version for Windows 98/ME/NT4.0/2000/XP/2003

Users manual

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Manual revised on 22-07-2003

Welcome to the Power Plotter

We are delighted that you have found in **POWER PLOTTER** a product which truly meets all your needs.

POWER PLOTTER is RIP (raster image processor) software which permits the management of raster and raster-vector [1] or simply vector[1] images frequently generated by programs running on Mac®, Dos®, Windows®, Unix® systems such as PageMaker®, CorelDraw®, Autocad®, Photoshop®, Freehand® etc.

The software package has been specifically developed to meet the requirements of a Services Centre; with that aim, great attention has been set aside to create a very user-friendly interface thus reducing user operations to a minimum which, in 90% of cases, consist in selecting the file to be printed and in assigning the print dimensions. The delayed print and calculation features increase productivity and service.

POWER PLOTTER represents the ideal hardcopy instrument for a number of fields such as photography and advertising graphic design (generally DOS or MAC raster images originating from photographic manipulation or DTP packages), such as G.I.S. (DOS, MAC and UNIX mapping), and architectural (rendering).

Thanks to its advanced Colour Management with the use of ICC profiles, POWER PLOTTER also lends itself for use in typography and photolithography, to provide customers with a good quality digital test print using ink jet printers or a plotter.

In all cases the PostScript interpreter ensures the dialogue with the various platforms and the maintenance of the quality of the text contained within the file, even when carrying out very large scale printing jobs.

The possibility of handling even HPGLII and PLT files allows the creation of print queues with both raster and vectorial files.

To offer maximum performance, **POWER**

[1] PostScript version

PLOTTER must operate in parallel with a photo-manipulation program with which to acquire (by scanner or from another source) and retouch (for example add text) the images.

Acquisition may also be performed directly by **POWER PLOTTER** if using a scanner which uses a 32-bit Twain driver.

POWER PLOTTER handles various types of error diffusion dithering and is optimised for outputting to ink-jet plotters and printers. The dithering algorithm used allows the simulation of very high resolutions via software. **POWER PLOTTER** allows the direct setting of the dimensions in cm of the file to be printed without any limitations in format.

Through the tiling module (not available on all versions) it is possible to print images greater than the width of the plotter, the automatic and manual anti-aliasing filters allow the masking of any defects due to the possible low definition of the image.

The interface appears like a mounting stand on which it is possible to autonomously assemble and manage images originating from various sources, with various formats (raster or Postscript), and different colour spaces (RGB, CMYK), this way it is possible to optimise the available space thanks to the automatic positioning functions (nesting) or create custom compositions.

It is possible to automatically print multiple copies of the same image (or group of images) as with programming delayed execution or calculation.

With the aim of making the use of the program user friendly **POWER PLOTTER** handles the automatic setting of the vast majority of parameters so that the user need only select the mode best suited to the type of printing selected.

It is possible to store a large number of configuration files, containing all the parameters for any given printing job, so as to be able to recall them quickly.

The depth of colour of the images handled varies from 2 to 32 bit (~16 billion colours) for some formats, it is also possible to handle colour depth up to 64 bit (CMYK at 16 bit pr channel), furthermore, images are also handled using Alpha channel (except some sporadic cases), thus printing them as normal images.

It is possible to create customised curves for each

type of paper or ink used by acting on the gamma correction values of each colour or creating customised ICC profiles with the aid of automatic instrumentation such as densitometers or spectrophotometers. GretagMacbeth instrumentation is particularly supported.

Power Plotter Team

PLEASE NOTE

Please complete the registration card and return it immediately to be kept up to date with any future upgrades

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Chapter I – Installation and activation

Minimum system requirements

The minimum system requirements are listed below:

- Computer PIII 400Mhz
- 64 MB of RAM memory
- 10 Gigabyte Hard Disk (1 GB free)
- Windows 98 or Windows NT 4.0 (or superior)
- Centronics parallel port / network interface card / USB (depending on the configuration of your plotter)
- Graphic card with at least 65,000 colours.
- Mouse
- Plotter or ink-jet printer

For large format colour print jobs, especially if dealing with PostScript files a Pentium/Athlon 1Ghz with 20 Gigabyte hard disk (7,200rpm), 256 Mbytes of Ram, CD-ROM or DVD reader are recommended; in addition an A4 colour scanner with 2,400 Dpi resolution with image acquisition software and a photo-manipulation program are recommended.

Installation procedure

How to install Power Plotter

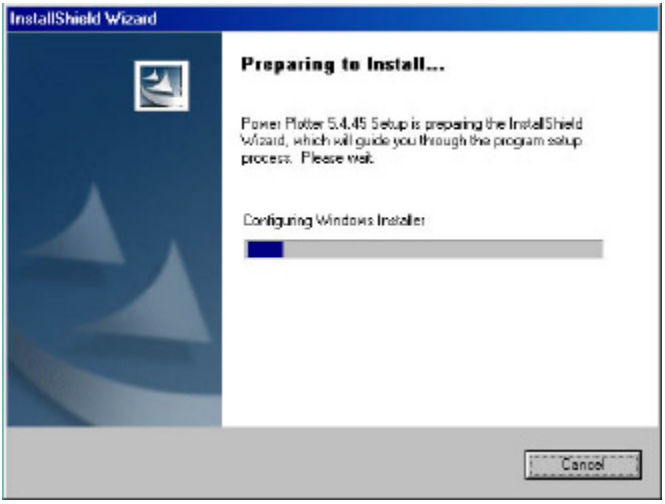
To start the installation of Power Plotter, insert the CD-ROM into the CD drive and follow the onscreen instructions. If the installation procedure does not start automatically, launch the STARTER.EXE file that can be found in the root directory of the CD.
Double click Windows Explorer, then click the CD icon, and then launch STARTER.EXE.
To install a non-demonstrative version you need to connect the dongle (if it is not a LITE-version) to the parallel port (or USB) before starting the installation. It is advisable to shut down your computer before connecting the dongle to the parallel port, while USB dongles may be connected with your system on.

Please note: if the platform is Windows NT (or 2000, or XP), must be performed whilst logged on with administrator privileges. The hardware key driver will have to be installed prior to beginning installation (see the later section "Notes for installation on Windows NT"). It is also necessary to have the most recent Service Pack installed!

The following Windows Installer screens will be displayed; you can accept default settings or change them based on your needs.

Seleziona la lingua dell'installazione
Selezionare la lingua per questa installazione tra le opzioni indicate di seguito.
Italian (Standard)
OK
Annulla

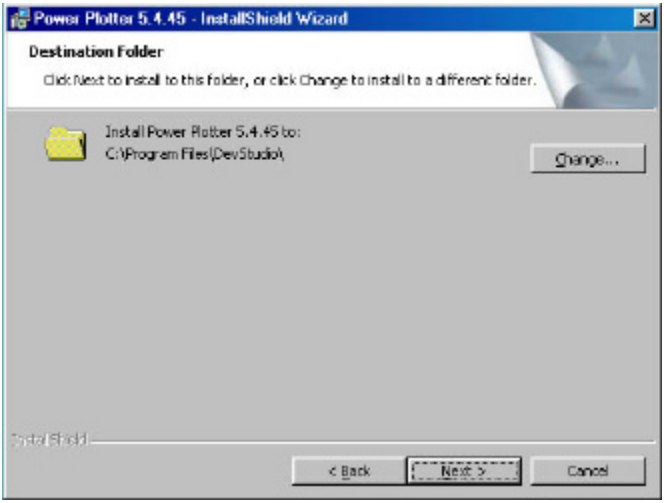
Selecting the installation language.


InstallShield Wizard
Preparing to Install...
Power Plotter 5.4.45 Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Configuring Windows Installer
Cancel

Use the “Back” and “Next” buttons in every installation step to return to the previous step or to go to the next one.

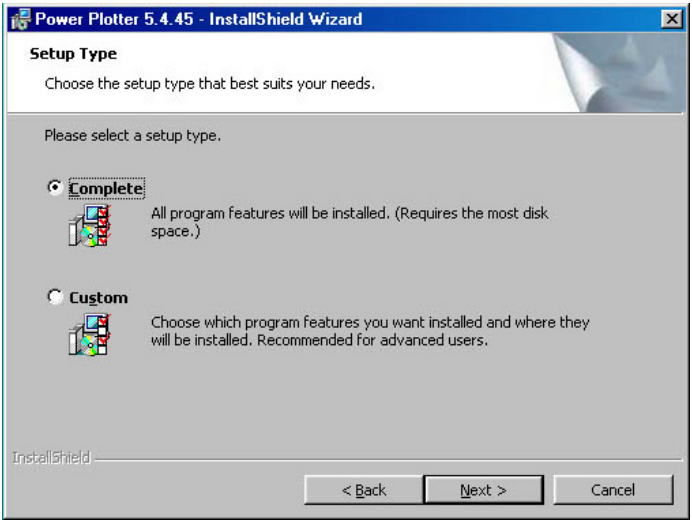
Power Plotter 5.4.45 - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Power Plotter
END-USER LICENSE AGREEMENT FOR Power Plotter(r) SOFTWARE
IMPORTANT-READ CAREFULLY: This End-User License Agreement ("EULA") is a legal contract
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

After you have read the license agreement, click Next.

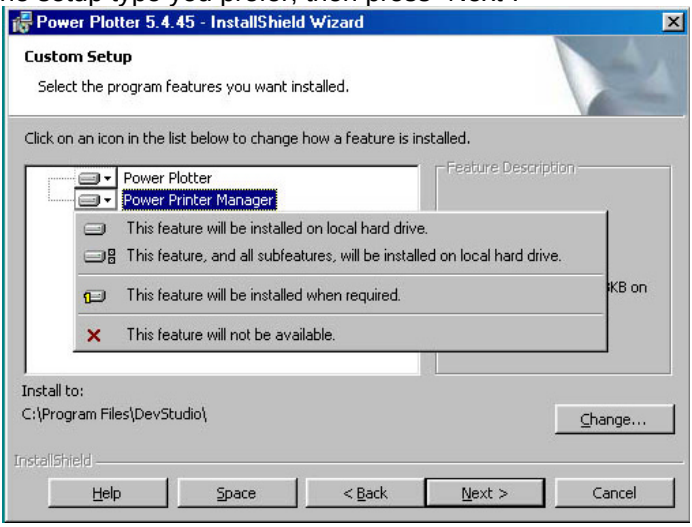

Power Plotter 5.4.45 - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install Power Plotter 5.4.45 to:
C:\Program Files\DevStudio\
Change...
InstallShield
< Back
Next >
Cancel

In the next window, click “Next” to accept the default installation directory

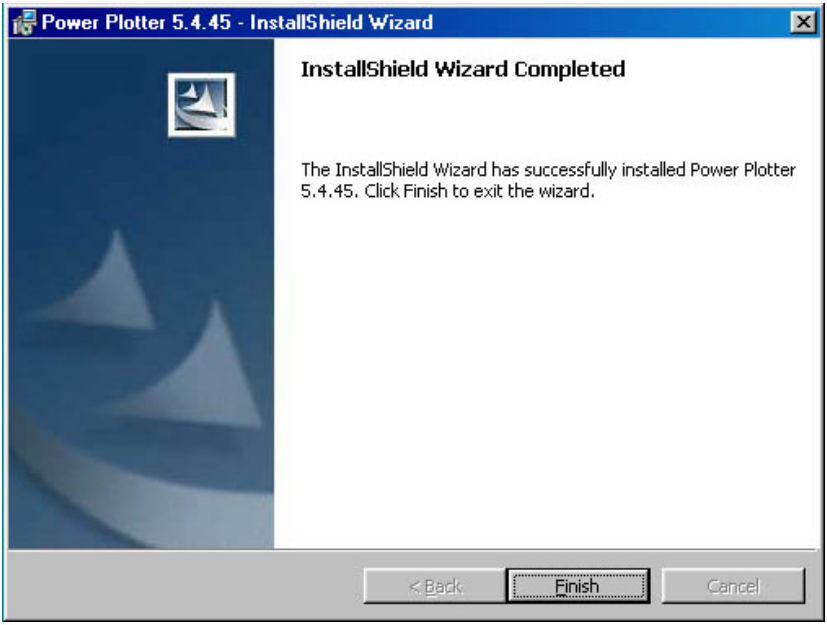
Or click “Change” to select a custom one.


Power Plotter 5.4.45 - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

Choose the setup type you prefer, then press “Next”.

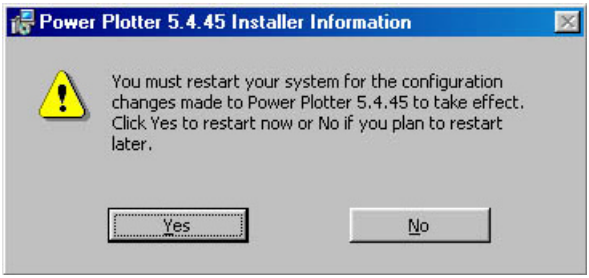

Power Plotter 5.4.45 - InstallShield Wizard
Custom Setup
Select the program features you want installed.
Click on an icon in the list below to change how a feature is installed.
Power Plotter
Power Printer Manager
Feature Description
This feature will be installed on local hard drive.
This feature, and all subfeatures, will be installed on local hard drive.
This feature will be installed when required.
This feature will not be available.
Install to:
C:\Program Files\DevStudio\
Change...
InstallShield
Help
Space
< Back
Next >
Cancel

The **Power Printer Manager** setup may be used on a different PC to create a Virtual Printer to send your print jobs from any application to **Power Plotter**.


Power Plotter 5.4.45 - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed Power Plotter 5.4.45. Click Finish to exit the wizard.
< Back
Finish
Cancel

Congratulations! Power Plotter has been successfully installed. Select "Finish" to end the setup procedure.

The following screen may be displayed at this point, suggesting that you restart your PC before launching the program. Restart your computer and then, launch Power Plotter.


Power Plotter 5.4.45 Installer Information
You must restart your system for the configuration changes made to Power Plotter 5.4.45 to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

Notes for the installation on Windows NT-2000-XP

The information below only refers to the installation on Windows NT-2000-XP.

To ensure that Power Plotter runs on systems with NT kernel (NT4.0, W2000 or WXP) you need to install the dongle driver.
The automatic installation procedure does this for you when the required serial code is inserted, in case of the procedure not working correctly, proceed as follows: login with “Administrator” privileges and launch SETUP.EXE from the directory "UTILITIES\DRIVERS" on your installation CD. Reboot the system to complete the installation.

Notes for NT 4.0
As USB is not supported, it only works with the dongle. To make the program access the parallel port you need to install a printer driver (only if no printer is already installed; otherwise, ignore the following procedure).
Login as Administrator, then install a printer driver from the Control Panel. The type of driver should be irrelevant.
At the end of the installation, open the ”Properties" windows of the installed driver and deselect the printer pooling.

Besides, for the program to run properly under Windows NT 4.0, you need to install the most recent Service Pack (supplied in the software CD-ROM) .

Special note for W2000
For this operating system you should update at least to Service Pack 2, to complete the setup procedure successfully (DevStudio provides the most recent Service Pack in the software CD).

Uninstall Procedure

To uninstall Power Plotter, proceed as follows: Do not delete the program directory without having first uninstalled it.

Open Windows “Start” menu, open the “Settings” menu and the “Control Panel” submenu. Double click on "Add/Remove Programs" and locate the Power Plotter 5.0 item, then click the Add/Remove button and follow the onscreen instructions. Now you can delete the Power Plotter directory.

How to save the list of print jobs after having uninstalled the software

When you delete the Power Plotter directory you will loose all report files and previews of print jobs. If you wish to save them, simply locate the CODE.MDB file and SAMPLES folder (they should be in the c:\Programmi\Devstudio\Powerplotter folder) and save them to another folder before proceeding to delete. You may replace them once you have installed the RIP again.

Start up

After having rebooted the PC you are ready to start the program for the first time.
You will see three new icons on your desktop (you will also find them in Start / Programs / Power Plotter):

Power Plotter: starts the main program.

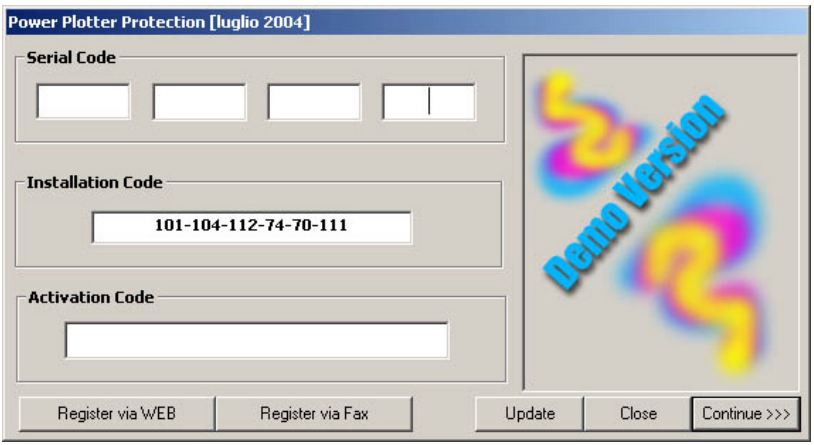
Direct Prints: Starts a program which allows sending already calculated print jobs directly to the printer(s) (for example .PRN or . PLT) and manages the print job file queue.

Power Plotter Printer Manager: allows creating and managing the Power Plotter virtual printers

Launching Power Plotter for the first time:

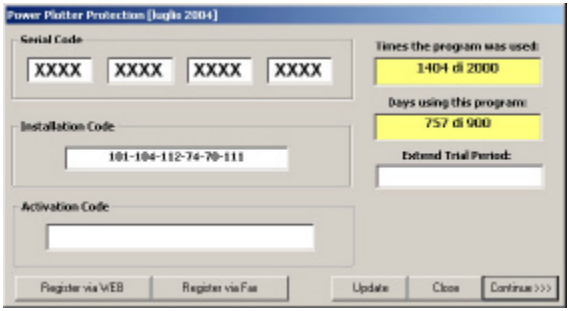
This message prompts you to select the language and the units. At the end of your choice, click “Confirm”.

IMPORTANT: REGISTRATION PROCEDURE



The window above prompts you to enter the 16-digit serial number to activate the version (the label is attached on the back of the CD case, or somewhere on the box).

ATTENTION. DO NOT INSERT A WRONG SERIAL NUMBER; ABOVE ALL, DO NOT CONFUSE "ZERO" (0) WITH THE LETTER "O" (O) OTHERWISE THE PROGRAM WILL START AS DEMO VERSION WITH LIMITED FUNCTIONS GIVING YOU THE MESSAGE "DEMO VERSION".
THE SERIAL NUMBER FOR EACH PACKAGE IS UNIQUE.



When you enter the serial number, the screen will change, displaying a new window where you have to enter the registration number (activation) that you need to request from DevStudio to definitely unlock the program. You have 30 days or 120 total running since the installation to request this number, after which if you don't register, the program will only work in "Demo Version", limiting the print size and printing "demo" on every print job.

The registration number is unique for each machine you want to run Power Plotter on, and you can request it on-line (1) (if the PC is connected to the Internet) or by FAX (2).

1) The on-line procedure is certainly the fastest and allows receiving the correct registration number directly in your mailbox (this is a fully automated procedure).

Go to the **www.devstudio.it** website, select "SOFTWARE ACTIVATION" and follow the instructions on-line. To complete registration you must enter your personal data, user ID, Password and e-mail address; you need to remember these data to download program updates, drivers or profiles or, optionally, edit your personal data.

2) With the Fax procedure, on the other hand, you need to fill out the data sheet by clicking on the relevant button and send it using a Fax machine, or you can fill out the form that comes in the program box.

To activate the program definitively with the proper registration code you need to close and restart the program.
The program license is valid only for installation on one PC, in the case you have to proceed with a new installation on a new PC or however, after format operations or damage of your hard drive, you can proceed with a new registration that will cancel the old code creating a new one. By proceeding with the new registration the system will recognize you as a user and it will ask you for a password, which is the e-mail address you gave during the first registration.
This procedure (in the case of a Software key) may be completed however a maximum of 10 times, after which you will have to contact Devstudio to receive a new code. It will only be necessary to do this for changes to the working PC or the hardware protection key for some reason (included with some versions of the product).

Upgrading functions

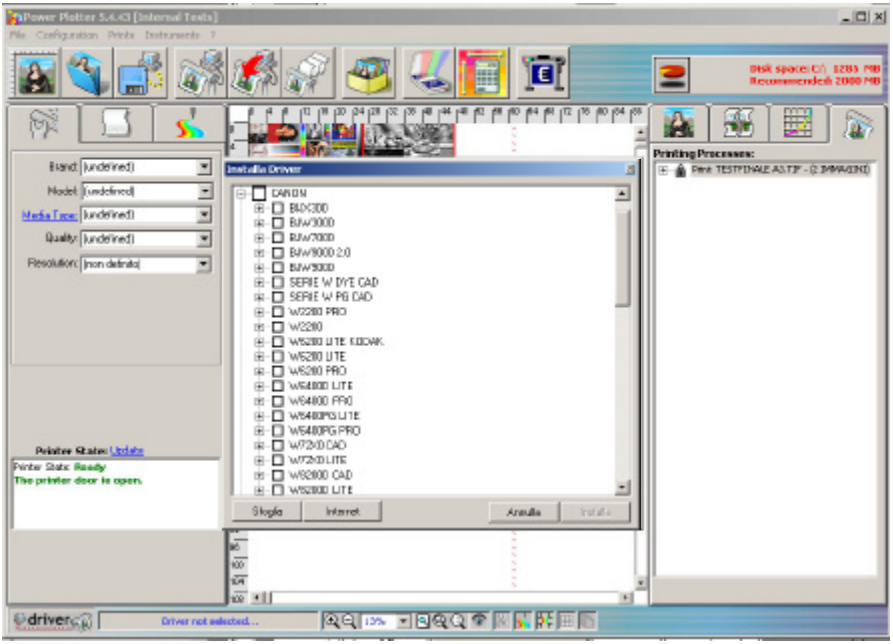
When you purchase an update to a superior version, follow the instructions inside the new package, from the interface of the software select the menu "?" then the item **PROGRAM PROTECTION**, enter the new serial number in

the appropriate field and press “Next”, now you can exit the program. If you have a version with dongle, upon the following reboot the program will start with the new functions already activated; on the other hand, for versions with software only protection, you will have to proceed to a new registration on-line or by Fax. Replace the new code to the old one.

When you upgrade to a new version, the old serial number is deleted from our database and is no longer available.

Installing / Adding Printer Drivers

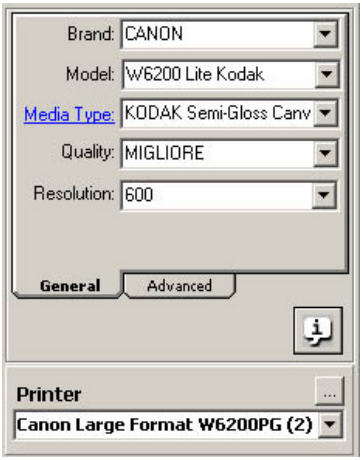
Now you need to install the printer drivers for your plotters/printers.
Once you have activated the program, the Power Plotter interface is displayed:



Here you can select the drivers you need to install. You could install all drivers but, for greater simplicity, we suggest that you only install those that are really necessary.

You can add new drivers anytime you want, either using those present on the installation CD or updating new ones downloaded from our Website. In that case you need to select BROWSE and then locate the path where the file had been saved before (the file should have a .dpp extension; sometimes, the operating system may see this as a zip file and add the .ZIP extension to it; this needs to be deleted).

You may also remove an installed driver by clicking on the blue link next to the driver name in the setting window on the right; this will open a new window with the list of installed drivers from which you can select those you wish to remove and then click on “Remove”. Several printers also have the "Advanced" tab, where you can set further printing features, such as feeding type (roll or sheet, tray, print margins etc.)



In the window nearby there is the "i" (information) button which displays useful information about the driver settings and the selected print media. Specifically, it describes the paper setting that needs to be selected on the plotter when a certain type of print media is loaded.

Chapter II – Program technical specifications

Supported formats

Power Plotter supports the following graphic formats in read mode:

- Microsoft Windows Bitmap / OS/2 Bitmap: BMP, DIB
- Encapsulated PostScript: EPS, PS, PDF (in the PS version)
- Joint Photograph Expert Group: JPEG
- Tagged Image File Format: TIF, TIFF (CCITT Group 3, CCITT Group 4, Huffman)
- Macintosh PICT: PICT, PCT
- Truevision Targa: TGA
- HPGL-HPGLII (certain versions)
- PSD (up to version 5)

Power Plotter supports the following graphic formats in write mode (saving or printing):

- Microsoft Windows Bitmap: BMP, DIB
- Joint Photograph Expert Group: JPEG
- Tagged Image File Format: TIF, TIFF
- PostScript: PS (in the PS version)
- HP Printer Command Language: PCL
- HP RTL
- Canon GARO

Software specifications

- Handles plt and prn files by sending them directly to the printer;
- Handles raster images up to 48 bit with Alpha channel;
- The possibility for opening images both at a customised resolution and viewing only the file size, and in FULL MODE at high resolution. • Mounting stand to place together several images for printing to optimise paper (up to a maximum of 99 images).
- Management of the files over many pages for print jobs on single sheet printers.
- Hot folder for the automation of the printing procedure, by simply copying the files to be printed inside the predefined folders.
- The possibility for importing files at preset sizes thus respecting any pagination or format settings.
- Rotation and mirroring;
- The possibility to move, resize or rotate each individual image by using the mouse or keyboard.
- Automatic image repagination algorithm (Nesting) to optimise paper and cutting.
- Each image is manageable independently of the others, may have its own configuration with reference to the application of profiles and corrections.
- Colour management of ***tone/luminosity/contrast/saturation*** of CMYK or RGB files with real time onscreen previewing;
- Wizard for establishing the correct resolution during acquisition and printing.
- Advanced dithering and colour management;
- Various types of advanced dithering;
- Various levels of antialiasing filters with automatic and manual management to preserve the quality of highly enlarged images;
- High output resolution for photographic quality;
- Full support of **ICC colour profiles**, with the possibility of setting input profiles (with automatic recognition of the profile incorporated into the file), output profiles and colour trial simulations.
- The possibility of converting from one profile to another profile for saving.
- Internal procedure (in some versions) for printer linearisation (using a densitometer or spectrophotometer, Gretag Macbeth, instruments are

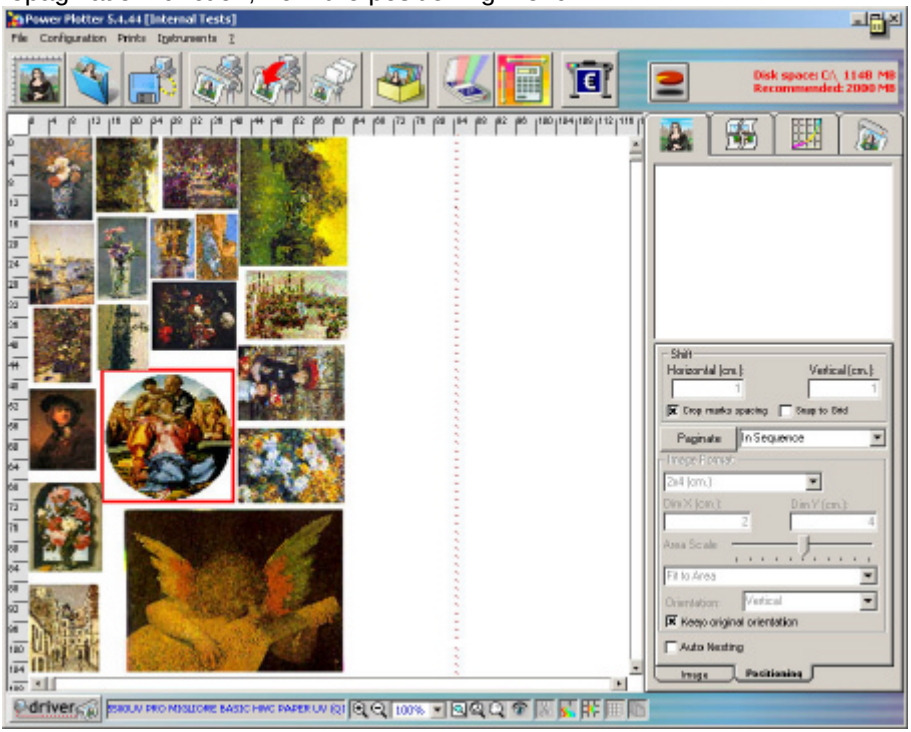
supported)
- Separate output curve correction over multiple colours, with the possibility to create various customised curves for a number of paper or ink types.

- Trichromy, quadrichromy and extended quadrichromy printing with customised black generation curves.
- The possibility of delayed printing calculation;
- Delayed printing and multiple copy handling with an integrated database (processes management);
- Conversion between the main graphic formats;
- Integrated tiling module (on selected versions) for printing at dimensions greater than the width of the plotter;
- Print reporting with a database for the management of the completed print jobs, with the possibility for the automatic recovery of the settings to repeat and already completed print job;
- The saving of various configuration parameters and the recovery of the settings from the print report;
- Full level 3 PostScript support with 35 integrated fonts (in PS versions)
- Software developed and supported in Italy with instructions in Italian.

Chapter III – Menu commands: the File menu

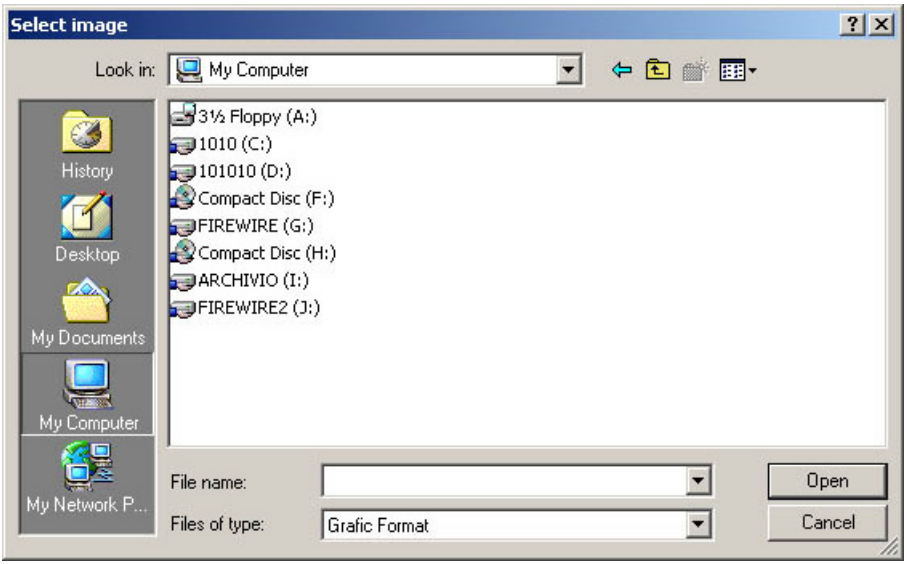
New workspace (CTRL+N)

This command allows clearing the current workspace (prompting with the option to save for future use), if open, and beginning a new job.
A workspace is an area defined by the user, usually equal to the sheet present in the plotter, onto which it is possible to arrange various images at the required dimensions according to the desired layout or with the aim of optimising the space.
Space optimisation may be performed manually or automatically, using the repagination function, from the positioning menu.



Open (CTRL+O)

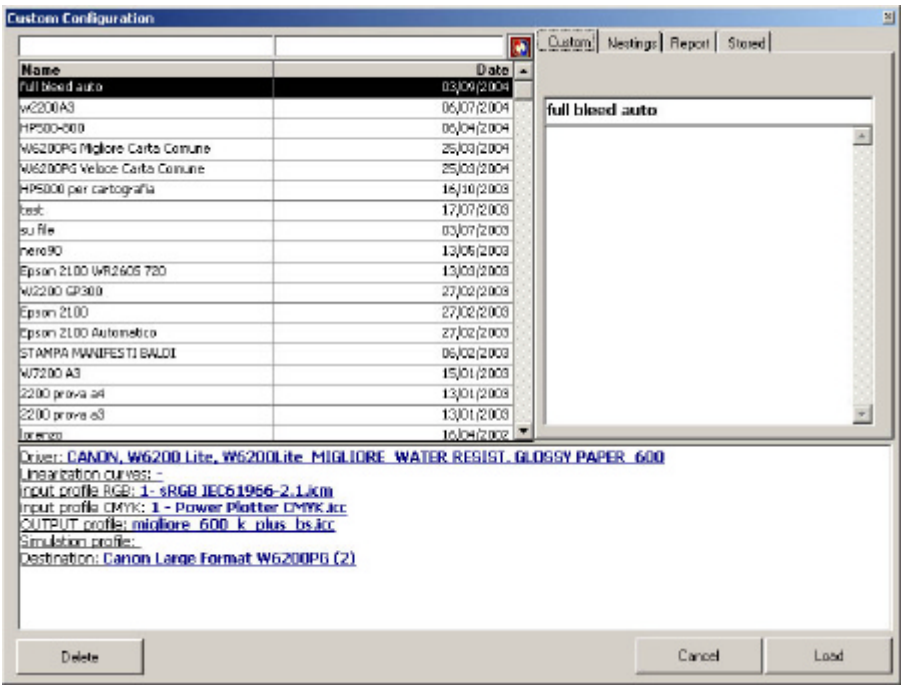
The open command opens a file (in one of the supported graphic formats) and displays it in the main Power Plotter window, where it may be worked on prior to being sent for printing by itself or together with other files or saved in another format or resolution. It is possible to open more than one file simultaneously by selecting them using the open window, or by directly dragging and dropping them onto the program interface.



The Open window

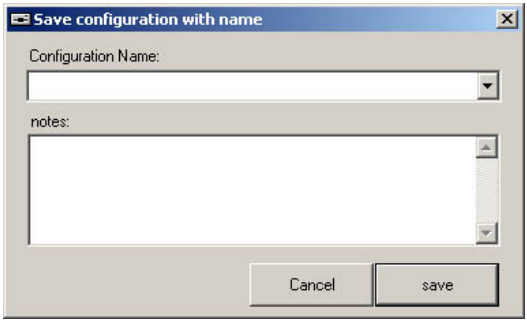
Open workspace (CTRL+L)

Recover a workspace including images and/or the settings used from the list of those saved.
If some images are missing, this is pointed out and the option to continue opening the others is given. It is likewise possible to select or load the same layout whilst changing the images, step by step prompting will ask which images should replace the previous ones. It is also possible to load only the settings and not the images. In two fields present to the top left, it is possible to search for the desired workspace using various types of filters.



Save workspace (CTRL+T)

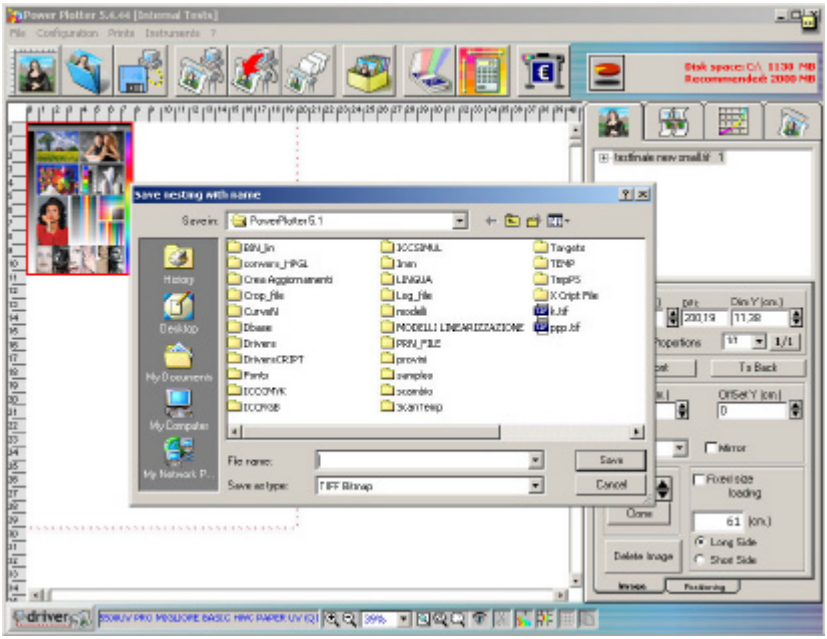
Save the current workspace to subsequently recover the settings used, also reloading all the images (clearly only if the path has not been removed in the meantime).



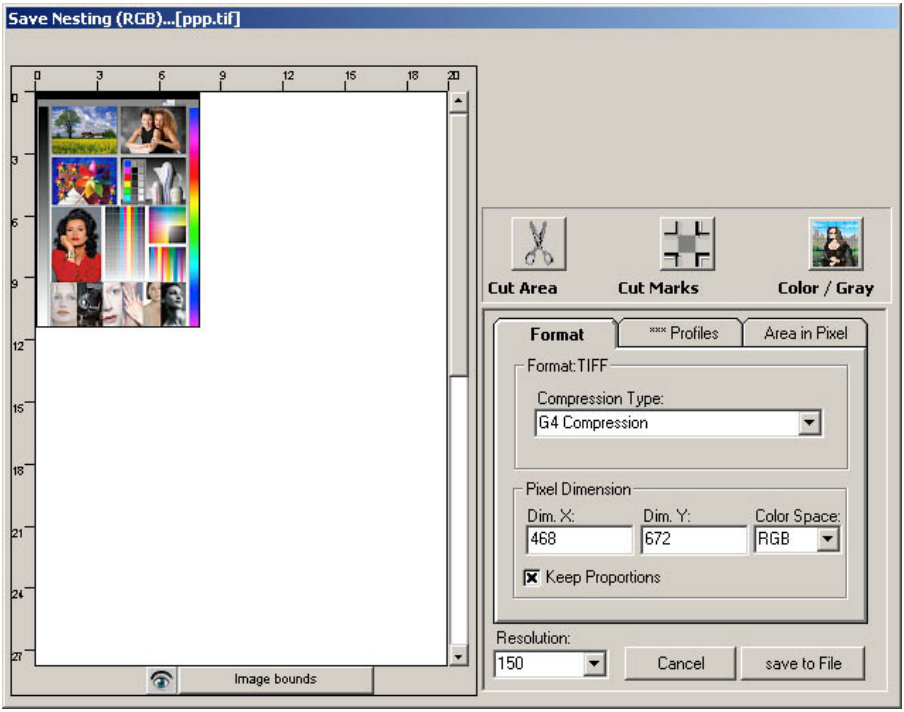
Save image(s)/ (CTRL+S)

The Save image(s) command allows saving the entire workspace in a file as single image, in one of the following formats: BMP, TIFF, JPG, PS.

By selecting the desired format from the drop-down menu, their appears a list of options which allow defining the type of compression, the umber of colours for the new image and its resolution in pixels or in DPI.
Image scaling will always be performed using the normal antialiasing filter so as to maintain good image definition.

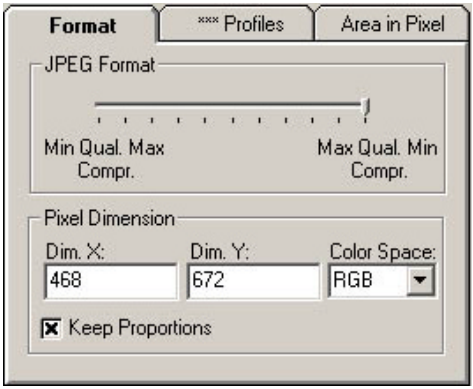


The Save as window.



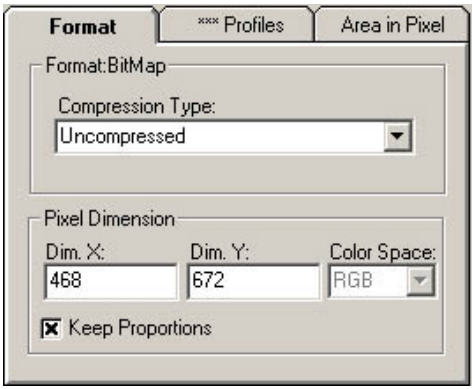
TIFF bitmap format options

Various save options are available for **TIFF format** files relating to the desired compression for the file.
It is possible to save in both **RGB** and **CMYK**.
Particularly, the available options are:
No compression Does use any compression, the file will have a large size and be readable by all types of software.
JPEG compression, with a loss of quality for the tif file (compresses by about 75%, readable using professional software such as Photoshop).
G4 typical compression for a black and white cartography file.
FAX typical compression for faxes, also in black and white.
ZIP compression using the famous zip technology (compresses by about 50%, readable using professional software such as Photoshop).



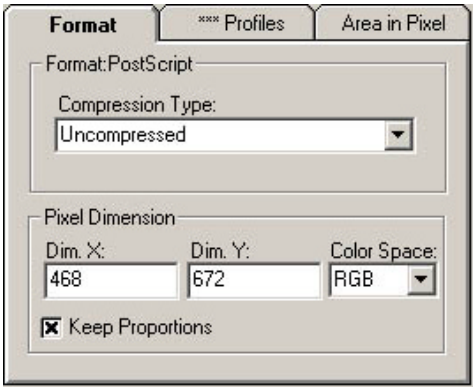
JPEG format options

The JPEG format uses a type of compression that loses quality over 100 levels from the lowest (level 1 with very high compression but poor quality) to the highest (level 100 low compression but with quality more or les equal to the original), normally, good compression is between 70 and 80%.
It is possible to save in both **RGB** and **CMYK**.



BMP format options

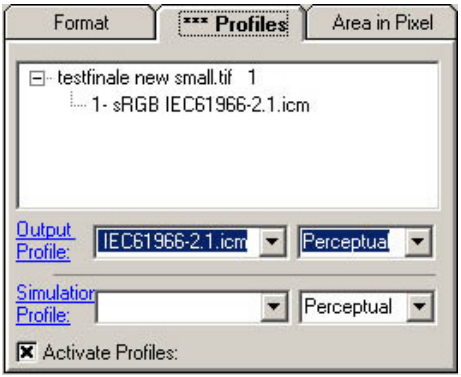
The BMP format is the typical Windows format and is only valid for RGB images, it provides compression without loss of quality.



PS format options

PS format generates a compressed raster file in JPEG, ZIP or not compressed in a PostScript file.

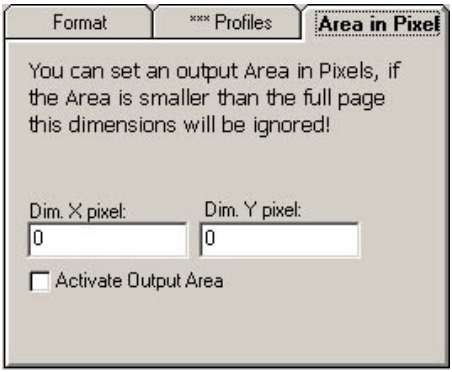
Other file saving options - 1: Profiles



Options for saving using profiles (valid for all formats)

From this window it is possible to configure colour profiles (if desired) which will be applied during file saving. Hence, it is possible to convert an RGB file into CMYK (from the previous window) or *vice versa* or between two types of RGB or CMYK files incorporating a colour profile.
The file thus converted may be used to print it using applications that do not directly allow the use of profiles, or to create a file with a known colour space to subsequently reopen it, maintaining the quality and the colour information.
By clicking on “Output profiles” or “Simulation profile” it is possible to load a new profile from disk.

Other file saving options - 1: Area in pixels


Format
*** Profiles
Area in Pixel
You can set an output Area in Pixels, if the Area is smaller than the full page this dimensions will be ignored!
Dim. X pixel:
0
Dim. Y pixel:
0
Activate Output Area

In this tab, the third of the file saving options, it is possible to define an area within which the images will be saved. In this case there will be a white border around the workspace.
As the window itself also explains, this function only works if the area defined is greater than the area occupied by the images.
This function may be useful if it is necessary to have well defined dimensions.

OTHER OPTIONS WITHIN THE "SAVE WORKSPACE" SCREEN

The cut function is used for selecting part of an image and saving that alone.

The marks button allows access to the cut marks configurations. (see page 66 in relation to this function). The marks thus inserted will be stored in the saved file and may be useful in the case of possession of a limited version of the program which does not allow printing, or in any case for storing an image from the complete workspace.

The colour/greyscale button automatically transforms images to greyscale during printing or saving.

Close image (CTRL+F4)

This command removes a selected image (or images) from the viewing window.

Cancel preview

Power Plotter maintains a cache of the most recently used images to speed up loading. The Cancel preview command empties this cache, so that Power Plotter is forced to seek the original instead of the copy of the image. In any case, if the image has been modified, it is automatically searched for. This preview function is used to show the appearance of the document which must be printed so it may be positioned on the workspace. Eliminating them is generally not necessary as they take up very little space. However, it may become useful in certain situations, for example where some of these files are damaged causing errors in the program.

Select all images (CTRL+A)

This command may be used to simultaneously select all the images on the workspace.
This way it is possible to apply all the operations being performed to all the documents present. However, it is not possible to move them using the mouse as with a single image, but it necessary to use the cursor arrows from the lower tab to move them.

Select source

Sets the source used when running the Acquire Scanner command. Useful when more than one TWAIN acquisition device is installed (for example a scanner and a camera).

Acquisition from a Scanner

This function calls the 32 bit TWAIN scanner driver so that it is possible to acquire an image, save it and print it within the program itself. This function also communicates with other peripherals, such as scanners for other devices or digital cameras, having a TWAIN driver. To use this function to its best, it is useful to refer to DPI calculation, to determine the optimal acquisition resolution in relation to the print dimensions.

Add printer drivers

Allows the addition of additional printer drivers. The procedure is explained in detail in the chapter Installation / addition of Printer Drivers

Update program version…

After having downloaded updates from the site, this allows the installation of the new components. It requires the selection of the path where the VDN (or ZIP) file has been saved and then following the onscreen instructions.
***** !!! ADDITIONAL NOTE !!! *****
The most recent versions of the update files are in auto-installing format, for which the function described above is not required, but act by themselves by directly running the “PATCH” program with Power Plotter shut down.

Install virtual printer

Opens the interface through which it is possible to create a system printer, accessible by all windows programs.
This function is discussed in further detail in the appendices at the end of the manual, in the page *“How to print from any application”.*

Recently used file list

Conforming to the standards for Windows applications, the program file menu contains a list of the names of the most recently loaded files through which an image may be loaded with a single mouse click.

Exit the program

This command terminates the program prompting for the saving of the workplace created.

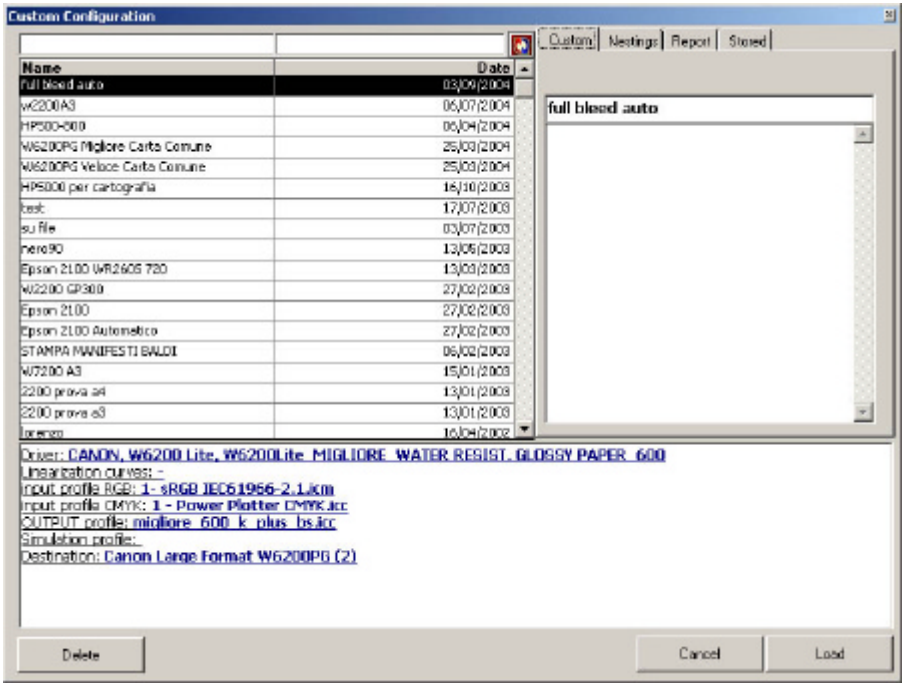
Chapter IV – Menu commands: the Configurations menu

Language

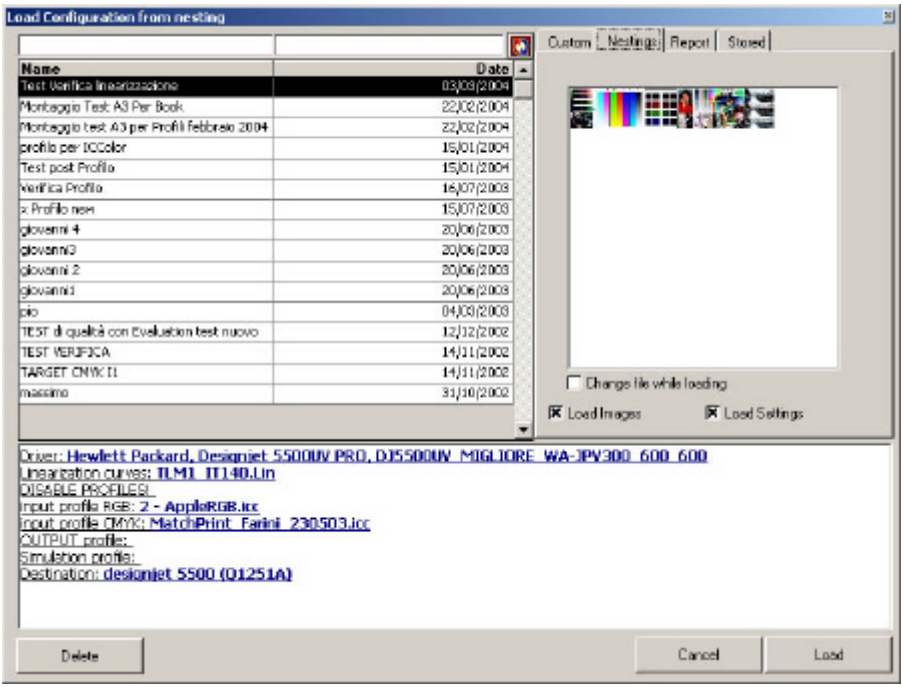
From here it is possible to select the various languages for the program. After having made the selection, it is necessary to close and restart the program.

Configurations (F5 Hotkey)

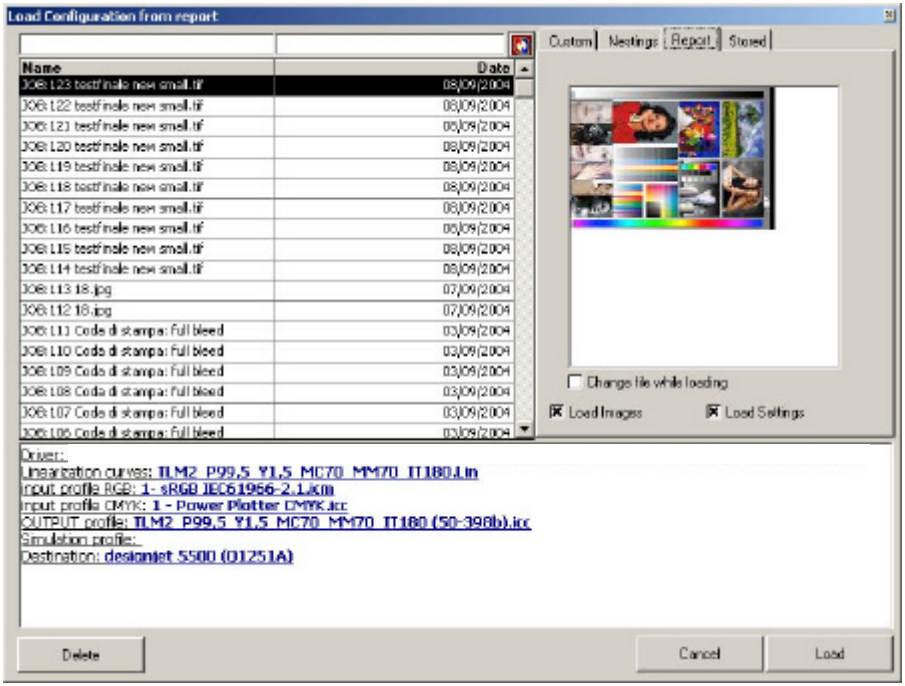
This menu allows accessing the print settings stored from previous print jobs. It is possible to restore the settings from four different archives, in all cases it is possible to load both images and configurations, or one or the other separately.
The first loads the configurations saved ad hoc for particular situations (from the Save configuration command…).
The Change file in the workspace flag allows the selection of other images in place of those saved during opening, so as to save the workspace settings with other images.



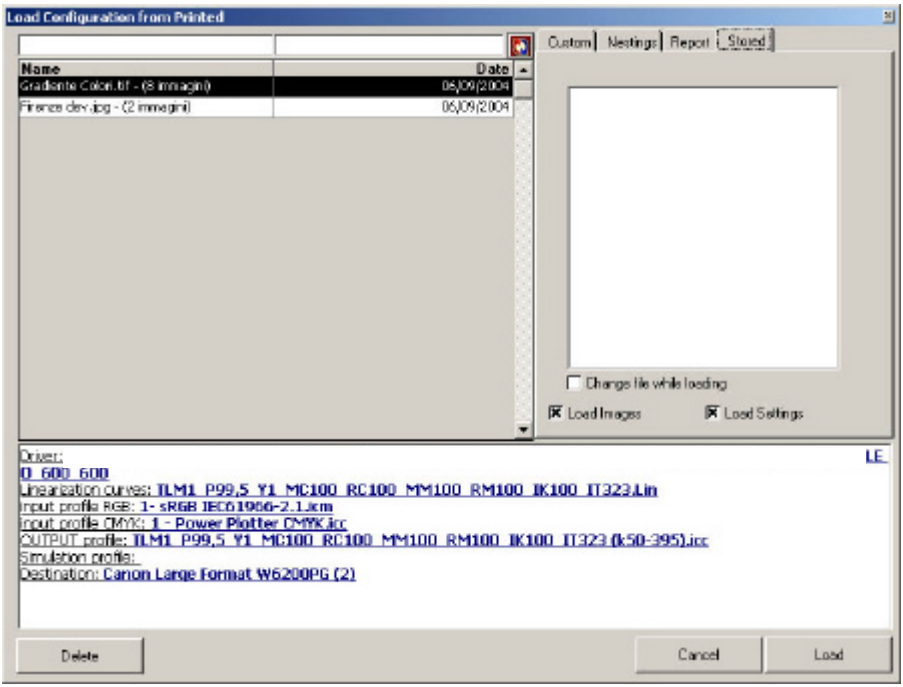
The second loads the saved workspaces to be able to start with the images we have already loaded and we wish to be able to use with the previous setup.



The third loads the configurations from the previous print job report.



The fourth loads the configurations from the saved print jobs.



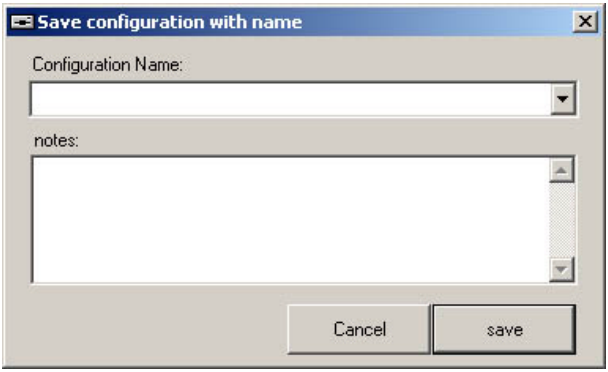
Save Configuration (F6 Hotkey)

The Save Configuration command saves the currently active configuration to disk. Select the Save Configuration menu option and indicate the name which should be used to save the configuration; it is also possible to select a previous configuration from the drop down menu to be overwritten.

With this command, all the settings in the interface in relation to the print options are saved.

It is very useful to store the conditions for: linearisation, colour curves, profiles… which we have found for certain printing conditions and which we would like to be able to use in the future.

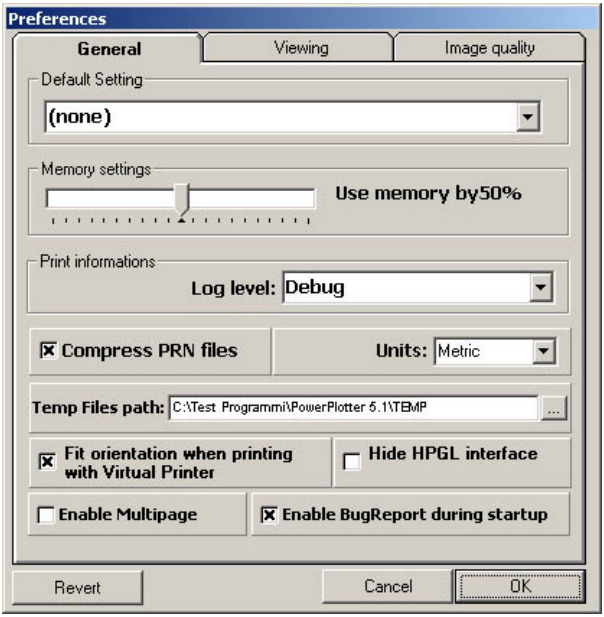
These configurations themselves may be used to associate them with a virtual printer (see the appendix) or to set the options during printing (see chapter V).



The Save Configuration window

Program preferences (F2 Hotkey)

From here, the program display functions are set, the Default configuration is set along with the quality variables.



Default configuration:

Loads the configuration selected at the opening of the program, otherwise it uses the previous values.

Memory management:

Defines the amount of memory (RAM) in percentage terms, which will be used by the program to perform its functions. The greater the amount of memory, the faster the operations will be carried out (predominantly the workspace operations and rotations)
The percentage of memory used is based on the available memory, and not the total system memory.

When working with small workspaces, it may be useful to use high memory values (50-70%) so that the images may be processed directly in RAM.
With more demanding jobs, such as workspaces with many images, very resource heavy, rotated imaged, it is advisable to set the usage of RAM memory to 0%. This way the program generates very rapid access temporary files, and avoids relying on the Windows virtual memory, generally much slower.

Log message types

Log messages may be accessed from the menu bar through the "?" symbol. A message can have three levels of information.
Normal: Only fatal errors are recorded.
Detailed: Changes in the machine status are additionally recorded.
Debug: All the operations performed by the program are recorded, this may be useful for understanding where and why errors have occurred. To analyse the log messages, it is necessary to forward them to Devstudio.
Greater depth of detail also corresponds to a slowing down of the system, hence it is advisable to keep this set to normal unless trying to understand any anomalous behaviour.

Compress prn files

Allows the choice of whether or not to compress print files generated by the program. This function implies that the PRN files generated will have greatly reduced sizes and may be sent to the printer directly through Power Plotter or Direct Print. It may be necessary to deactivate this function in the cases where these files are distributed to outside services not possessing one of the above programs, or to analyse the output file. However, in the majority of cases it is useful to keep it activated.

Units of measurement

It allows to define whether to display messages using the decimal metric system (cm, mm, m…) or the Imperial system (inches)

Temporary file path

Defines the path where the program stores temporary files. It is always appropriate that this folder be on a fast and free disk, so that no problems arise due to lack of disk space.

Print orientation adjustment

With this function activated, the program will automatically check the dimensions of all the files arriving at the RIP through system printers, and compare them with the format of the sheet onto which they are to be printed (clearly this data is taken from the settings found in the Power Plotter driver menu).
Thus the orientation of the file will be adapted so as to ensure the best insertion.
For example, if a file with a horizontal size of 28cm and vertical size of 20cm is being printed and instead the settings on the RIP are 21 for horizontal and 29,7 for vertical (A4) Then the image will be rotated by 90°. If instead we have set a sheet size of A0 and the file is sent with a horizontal size of 20cm and a vertical size of 28cm, then the file will be rotated by 90° to optimise paper consumption.

Hide HPGL interface

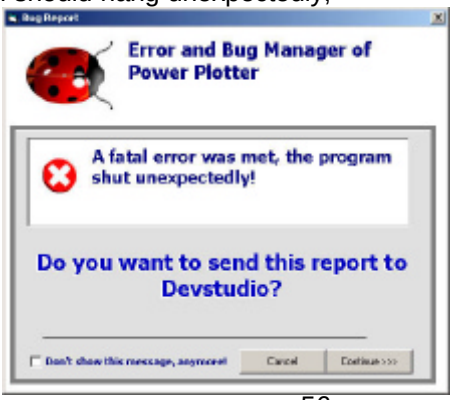
With this function it is possible to activate or deactivate the opening of the dialogue window when importing files in HPGL/HPGLII format.
These files will then be inserted using the standard settings.

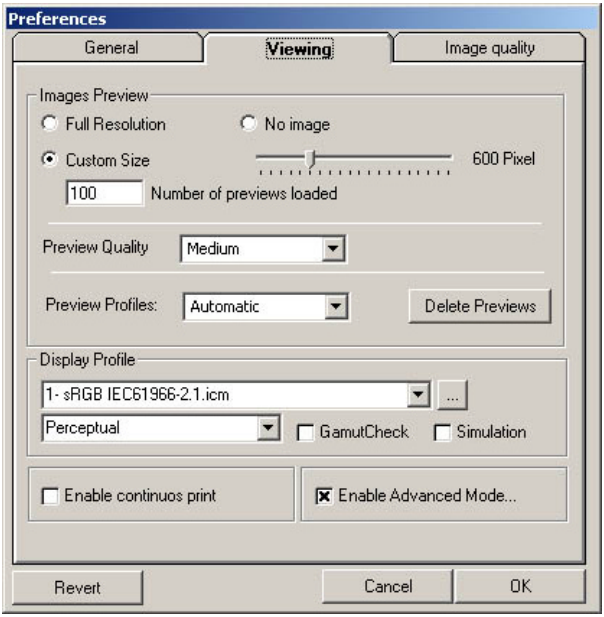
Enable multipage

With this command, the function is activated whereby images are inserted into the workspace until the area is filled, then as many pages as required to contain such images are created.

Enable Bugreport at start-up

With this command enabled, in case the program should hang unexpectedly, at the next start-up a dialogue window will appear, which may then be communicated to us to analyse the reasons for the hang


Error and Bug Manager of Power Plotter
A fatal error was met, the program shut unexpectedly!
Do you want to send this report to Devstudio?
Cancel



Viewing the images:

- **Full resolution** (loads the images at full resolution and is best suited for not overly resource heavy images or to be able to appreciate the images in detail, may be very slow when working with large images)
- **No image** (shows only the size and is useful for large images, the content of which we already know and we do not want to waste time loading the preview)
- **Custom size** (it is possible to set a size in pixels for the preview of the image to be printed, thus one can work in preview mode with a low resolution copy and the image contents and colour correction can be viewed in real time without any long delays).
- **Number of previews loaded:** limits the number of previews recorded to disk. These are the medium resolution images viewed on the workspace and avoid the reprocessing of a document that is already open, and occupy more space than small previews which are instead only used in the print queue and are limited to 500 images.

Preview quality: manages the quality level during the generation of the preview images.
Cancel small previews: Removes from the disk, all the small previews generated by the program for viewing the images, thus freeing up disk space.
Preview profiles: Three settings are possible: Automatic, Manual, Deactivated.
- If they are automatic, then the automatically use the profile within the image (if present), or the default.
- If they are manual, then they prompt for what to do at the opening of each file.
- If they are deactivated, then images are opened without the application of a profile.

Monitor profile: To achieve correct viewing of the image colours, it is necessary to set the profile of the monitor on which to view the images.

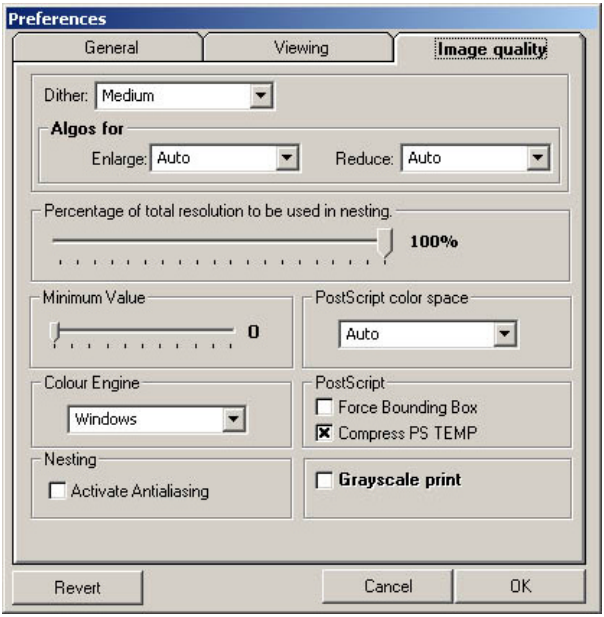
GamutCheck: Automatically activates the colour printability check function upon opening the image. Works together with the Preview Profiles. From the time the image is opened, all the colours within the image which are not precisely realisable using the selected printer and paper are indicated by a Red colour.

Simulation: Tries to simulate on the screen the effect the image will have on the selected paper.

Enable print replica: The print replica function is an advanced function which allows duplicating n number of times, vertically, the same image without margins. May be useful in certain cases, such as the printing of repetitive motifs on textiles. By activating it, a box appears in the last print window below, into which it is possible to insert the number of times the image must be repeated.

Enable advanced mode

By default the drivers are displayed in simplified form, and the selections the user may set are reduced to a minimum. When it is desired to access more possibilities of choice, select this flag and enter the password “POWERPLOTTER” (without inverted commas).



Dither

This function defines the type of screen the printer will use for colour dithering using spots of ink. The choice may be between.

High quality: gives the best print quality at all levels, at the expense of speed. More apt use is in situations where the printer is not very fast, and does not have very high resolution (e.g. < 600 dpi) and instead the computer doing the processing is of very high specifications.

Medium: gives the best compromise between speed and print quality, it is roughly twice as fast as high quality, whilst maintaining a very high quality.

Fast: further increases the processing speed, in this case giving a type of screen which may give rise to shapes or distortion. (suitable in cases where quality may be sacrificed for speed). (in cases where it is desired to use fast print modes which burden the processing power of the PC.

Very fast: is the typical typographic screen, where the dots are positioned with respect to a right angled grid, whereby rather visible defects appear, but it is however very advantageous for very large print jobs (e.g. 6 X 3) where the final quality is observed from far away, thus defects of this type are not noticed, but where greatest priority is given to the print speed.

Algorithms: Enlargement and reduction

Allows the selection of the scaling algorithm desired for enlargement or reduction. 4 levels are available in each direction.
Generally the best selection is AUTO, where the software decides which to use on a case by case basis, considering the original resolution of the image and the final print dimensions. Otherwise it is possible to select from those in the list, so that more emphasis may be placed on either speed or quality.

Workspace resolution with respect to output resolution

With this command, the program is told with which resolution to generate the workspace based on the print resolution. This way processing time may be reduced (especially for postscript files) because the images are assembled in a smaller format despite maintaining the output dimensions.

Minimum screen value

Defines with which screen value the program begins using the ink.
The use of low screens ensuring shading making images photographic quality on machines with not overly high resolution (less than 600dpi) may produce an unwanted effect since they make the ink spots stand out more hence "dirtying" the image. This is a parameter which is highly dependent on the individual characteristics of each printer and hence it is necessary for the user to select the value to use depending on the conditions.
As a general rule it may be set to 0 or 1 on printers with resolutions in excess of 600dpi, between 1 and 2 for those with 600, and between 3 and 4 for those having less resolution.

Postscript colour space

Postscript files may be (just like a raster image) both RGB and CMYK, however the software which generates the PS does not always insert the necessary information for Power Plotter to understand.
In this dialogue window it is possible to force the reading of the file in one mode or the other (or leave it in Auto for Power Plotter to determine). This function works from the time it is set for all the files opened from that time onwards, if a file has already been opened in one mode the program must be shut-down and restarted otherwise it will be opened with the colours inverted.

Colour engine

Advanced operating systems, such as Windows 2000 or XP, have provided within them a CMS (Colour Management System), whereby it is possible to use that from Microsoft® to have superior performances, when older systems are used such as Windows NT4.0, this is not supported and it is necessary to use the system that comes with the program which gives the same chromatic results but with longer print times.

PostScript:

Force Bounding Box reading.
In some PS formats, the information relating to the document dimensions may give rise to errors which impede correct viewing.
Thus it completely analyses the PostScript to find the real image measurements. It is not advised to use this in the majority of cases, since it significantly slows file opening times.
Compress Temp PS: in this way the temp files created during PS file processing are compressed and thus occupy much less disk space. Clearly, this results in the slowing down of the print process (however frequently unnoticeable) but may be indispensable for printing very large images which could have print files in excess of 2GB, which is the maximum size limit for a Windows file!

Workspace

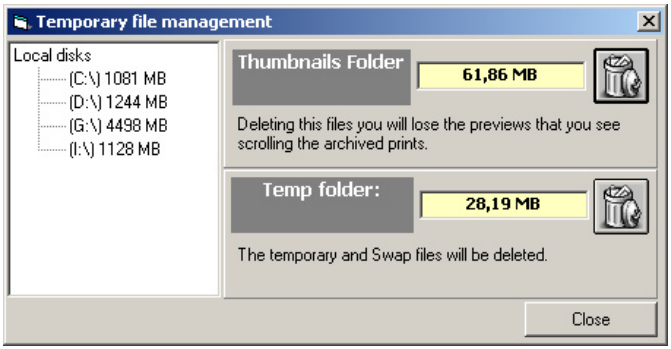
Enable Antialiasing: This command tells the RIP whether nor not to enable Antialising management (the process by which the image borders are rounded). On Raster files (TIFF, JPG, BMP) it is always enabled independently of whether it is set or not, whilst on Postscript files it may be enabled or disabled according to need.
Clearly by enabling it printing is slowed a little, but (in the majority of cases) files with much more regular lines are obtained!

Print in greyscale

With this flag enabled, the print job will be performed entirely in black and white.

Temporary file management

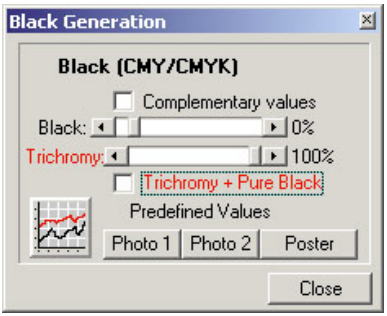
Opens an interface through which it is possible to verify the size of the temporary files and cancel them when they are too large.



On the left we have the summary of the free space over all the system disks. On the right the two main temporary file types.

1) the **print previews** which are created each time a new file is opened, and are used so as to have a small preview in the REPORT list and as miniatures in the accessory program “Cost management for HP series 5000” (the latter is used to calculate the cost of each print job made using the HPDesignJet 5000/5500) Cancelling them frees-up disk space but all the miniatures are lost and hence white squares are opened up in their place!
2) Instead the temporary files are the temporary rasterisations of the PostScript files, and the virtual memory files created by the program! It may occur that due to an error or due to the incorrect arrest of the program, traces of old processing jobs remain. From this interface it is possible to cancel all those which are no longer of any use with a single click! Those files which are not cancelled are those which arrive from application print jobs, those are cancelled from the **Print in progress** window as will be explained later in this manual.

Black management (CMY/CMYK)

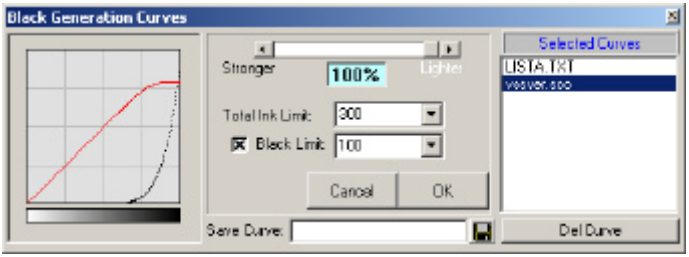


Sometimes it may be necessary to deactivate ICC profiles and print using standard colour curves, in this case colour use can be managed by controlling the percentages of pure black and trichrome black (the sum of cyan, magenta and yellow) used during the printing of the image.
Normally printing using an ink jet plotter uses 4 cartridges, cyan, magenta, yellow and black (plus the possible Light or Photo colours). Every other colour is generated by the overlapping of those colours, hence the name quadrichromy.
Another method, known as trichromy, is that which uses only the three primary colours (cyan, magenta and yellow) to reproduce any other colour of the spectrum. In this case a cartridge is not used for black, which is made by the overlapping of the other three colours making up black, that made from the overlapping of cyan, magenta and yellow, is not a pure black but may show some shades of dark green or dark brown depending on the type of ink and support used.
The result of the above is that when having to print a colour image where there are no very dark tones or completely black areas, it is certainly convenient to use the pure trichromy method which corresponds to the "TRICHROMIC BLACK" button. *Vice versa*, if there are many dark tones in the image, or completely black areas (for example this occurs in CAD printing) it may be convenient, to avoid any dominant colours, to move to a quadrichromy system, *i.e.* sacrifice a little of the screen quality in favour of greater greyscale fidelity.
The *Black and Trichromy* bars control how much the print job tends towards trichromy or quadrichromy.

The *Complimentary values* selection box corrects the percentage of trichromic black in such a way that the sum of the percentages of pure black and trichromic gives 100%. This way the image will maintain the same amount of black as the original during printing.
The usefulness of being able to apply separate percentages for pure black and trichromic black (possible with totals other than 100%) may be evaluated for printing photographic images with marked light and shade.
The *Trichromy + Pure Black* selection box allows working in trichromy (*i.e*. with black made from the three primary colours) using the black cartridge to perform only those points where the black value is 255 (pure black).
We will now try to explain this more clearly.
Any point may have a black content varying between 0 (white) and 255 (pure black); all the intermediate values 1, 2,..., 254 express the various levels of grey which are normally made using the black cartridge. On the contrary, whilst working in trichromy mode, even the grey colours are made by using the overlapping of the three primary colours.
The *Trichromy plus Pure Black* option composes the greyscale colours having values comprised of between 0 and 254 using the CMY colours, whilst a black value of 255 is achieved using the black cartridge. This way you can arranged that any writing or pure black parts of the image are printed using black, so as to avoid, in such areas, any dominant colours, and maintaining trichromy quality in the colour areas.
It is also possible to select various levels of pure black (pure black 1, pure black 2, up to pure black 10) through which the black values possible using a black cartridge may be extended from 246 to 255, so as to achieve also the clearer parts of the greyscale range.

The *Trichromic Black and Pure Black* buttons set the percentages to predefined values, recommended for certain types of printing. *Trichromic Black* (0% pure black, 100% trichromic) is suitable for printing very colourful photographs not containing particularly dark tones. *Pure Black* (100% pure black, 0% trichromic) is suitable for printing pictorial images (such as covers, manifestos and other graphic compositions or CAD images) where black predominantly appears not mixed with other colours, to be printed on opaque paper at high resolution.

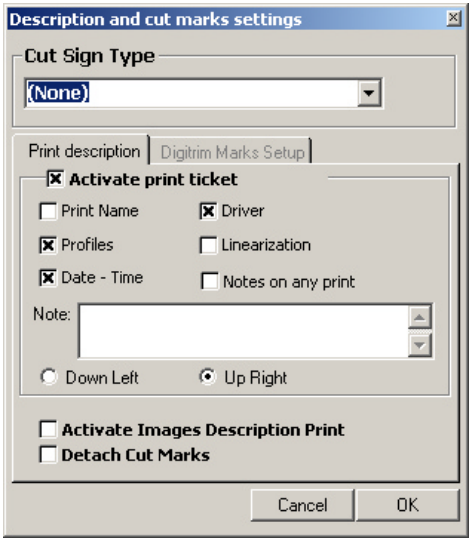
The button allows activating black curve generation selection.



The commands present in this window may be used for choosing whether we wish the black input to be more or less strong, and hence favour the colours or black, and impose a maximum to the sum of the four colours (up to 400% indicating using the maximum of each colour to make the darks more intense) and maximum of the use of black (100% indicates using up to the maximum).

Cut mark settings (F12)

From this panel, the margin print notes, and the cut marks necessary for trimming are set.



Cut Mark Type
The type of print marks and how they must be arranged may be selected.

None: no print marks
On the workspace: in the margins out of the print area
On every image: places the print marks in the margins of each image
Digi Trim: special print marks for the Fotoba® automatic DigiTrim® guillotine
X/Y Autodigitrim: special print marks for the Fotoba® automatic X/Y

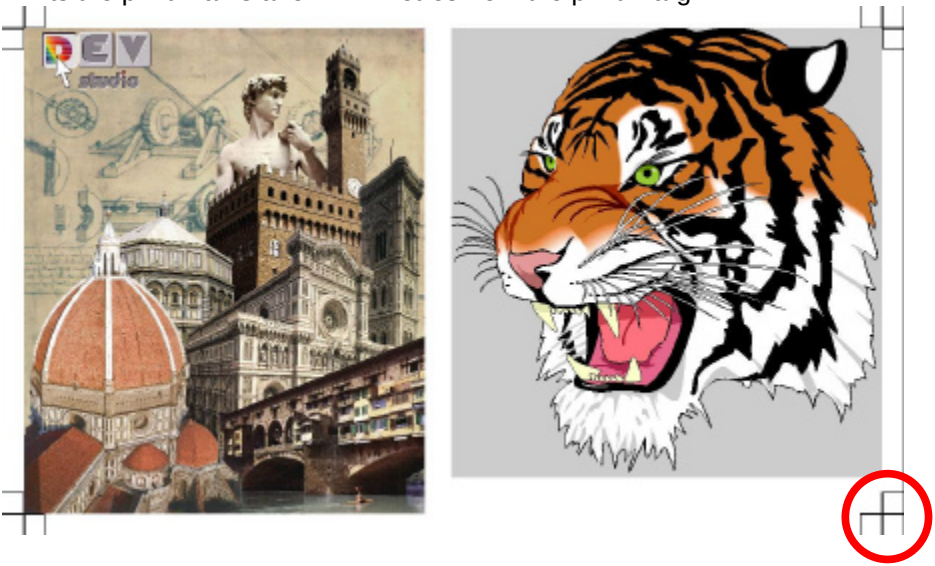
AutoDigiTrim® guillotine (automatic vertical and horizontal cutting).
Horizontal marks: Inserts only the horizontal Fotoba® cut marks.

Print description
Inserts notes with the information selected (image name – Driver – Profiles used – Linearization applied – Print date and Time – notes…)

You can select whether to insert them at the lower left or upper right of the image.

Enable image descriptions:
Writes the file name and creation date below each image.

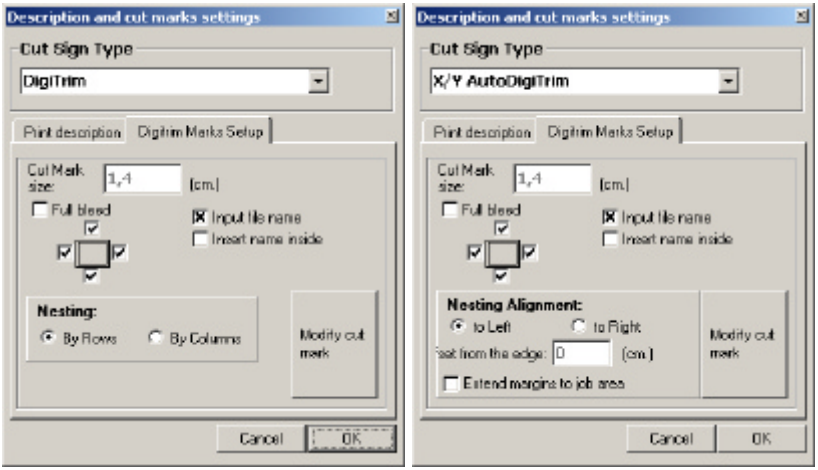
Detached mark:
Prints the print marks a few millimetres from the print margin.



Impagination with marks around the workspace. The marks “surround” the entire area of the image.

Impagination with print marks around each image.

Impagination with marks around each image and detached marks.



By activating one of the Digitrim® print marks, it will be possible to select the second TAB for their management.

Cut mark dimensions: gives a summary of the size of the mark selected.

Live workspace: places the print marks only in the internal, spaces between the images and leaves the edges free because the workspace is set up for print job without margins.

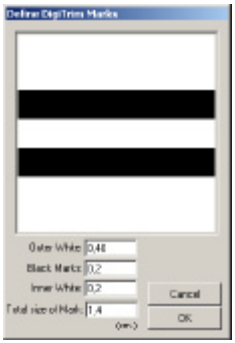
Auto nesting: enables auto adjustment of the images.

Input file names: Writes the filename in a space between the print marks.

Insert name inside: Writes the filename inside the image.

Paged: forces the positioning of the files so that they are horizontally or vertically aligned.

Alter cut mark: allows the modification of the settings in relation to digitrim® print marks. The thicknesses of the black and/or white lines may be adjusted.

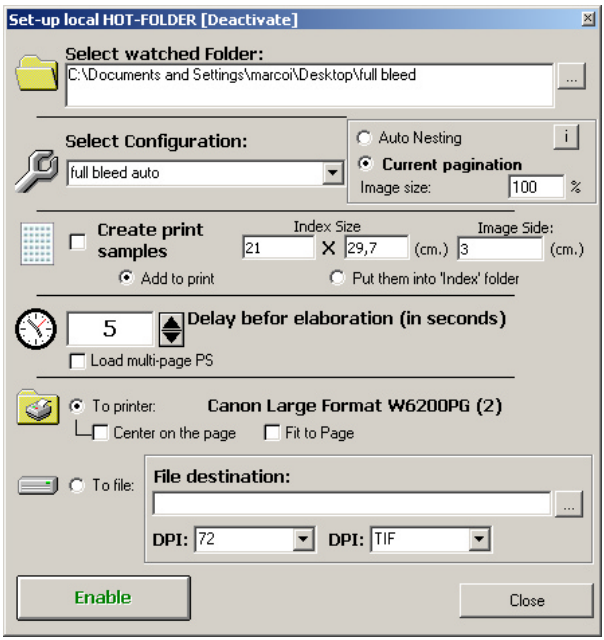


Impagination with Digitrim print marks

Hot Folder

Automatic printing is handled from here allowing the monitoring of a folder.

The following window appears:



The following options must be set:
Watched folder: defines which folder will be monitored by the program. All printable files inserted into this folder will be automatically processed in agreement with the chosen configuration (see further). Hence they ill be printed or saved without the need for any intervention by the user.
Select Configuration: here the rules to be used for the processing of the files are selected. These rules refer to all the print parameters, colour profiles, type of pagination, the format and the destination printer.

Auto nesting: Uses the parameters set in the IMAGES/POSITIONING tab which is to be found in the main program window, pressing the button with the letter “i” will open a note with the settings currently in use.
Current pagination: Uses the pagination parameters which are found in the main window in the IMAGES TAB. To this may be associated a scaling factor expressed as a percentage.
Generate Print Previews: Creates a page of variable dimensions (set using the adjacent parameters) which will be filled with images which are themselves also variable. It is also possible to attach this image to those currently being printed, or it can be saved in the INDEX folder.
Wait Time: sets a delay time from the insertion of the last file into the folder, following which file processing begins.
Load Multipage PS: Enables the opening and pagination of all the pages of PS documents consisting of several pages.
On printer: Indicates that the output will be a print job performed by the printer set in the selected configuration, the selected printer may not be changed from within this option, such an operation may only be performed during the configuration creation stage.
To File: The **Destination** folder**,** the resolution at which it will be saved, along with the format (BMP, TIFF, JPG) may be selected. This way, a new image made up of those source files will be created.

The “deactivate” button closes the dialogue and leaves the folder inactive, whilst the “Activate” button closes the dialogue and places the folder on standby…

When this animated graphic appears (in the top right, next to the buttons) it indicates that there are files in the folder, which will be processed when the counter on the left reaches the value set on the right.
To stop processing, simply click on the yellow folder and click on Deactivate in the dialogue.

Here instead it shows that the folder is empty, and hence the process is in a waiting state.

Chapter V – Menu commands: the Print job menu

Print

The print command, enabled following the opening of at least one file on the workspace, opens the window represented in fig. 1, from where various parameters in relation to printing are set.

Each image placed on the workspace is handled autonomously in terms of colour corrections, dimensions and position, until the print window is accessed at which point they are treated as if they were a single image.

It is possible to modify the dimensions of the image (or the workspace) during printing, define the horizontal and vertical displacements of the image (or workspace) with respect to the margins of the sheet selected (the margins are highlighted by black diagonal hatching on a grey background). By using the boxes which appear it is possible to, **Adapt** the image to fit the page, **Centre** on the sheet, use a particular **Scaling factor**. Depending on the chosen settings, the program informs the user regarding the consequent output resolution, indicating any cases where the print job would be at too low a resolution to ensure satisfactory quality, however it is a good idea to remain around 60dpi (minimum) for photographic images and 150dpi for images with writing and details on homogeneous backgrounds to which to give relief, and which we wish to avoid the appearance of jagging.

The cut function is used for selecting part of an image and printing it by itself.

The printing marks button allows access to the print job cutting printing marks and margin notes configurations. (see page 66)

The Colour/Grey button allows printing by removing all the image saturation whereby it becomes a greyscale image.

The output resolution of the image is a very important parameter for checking the quality of the image reproduced at certain dimensions. DPI stands for dots per inch, *i.e*. the number of dots every 2.54 cm. For example

600 dpi, which is the most common print resolution for plotters, means that for each 2.54 cm of print there are 600 dots.

The following is a summarising table of the recommended minimum resolutions.

- 60-80 dpi in the case of photographic images without text or very little text
- 80-100 dpi in the case of photographic images with text or logos.
- 100-120 dpi in the case of rendering or CAD images with contrasting borders.
- 150 dpi in the case of CAD drawings or plans or documents with text, rasterised in formats such as TIFF or BMP.

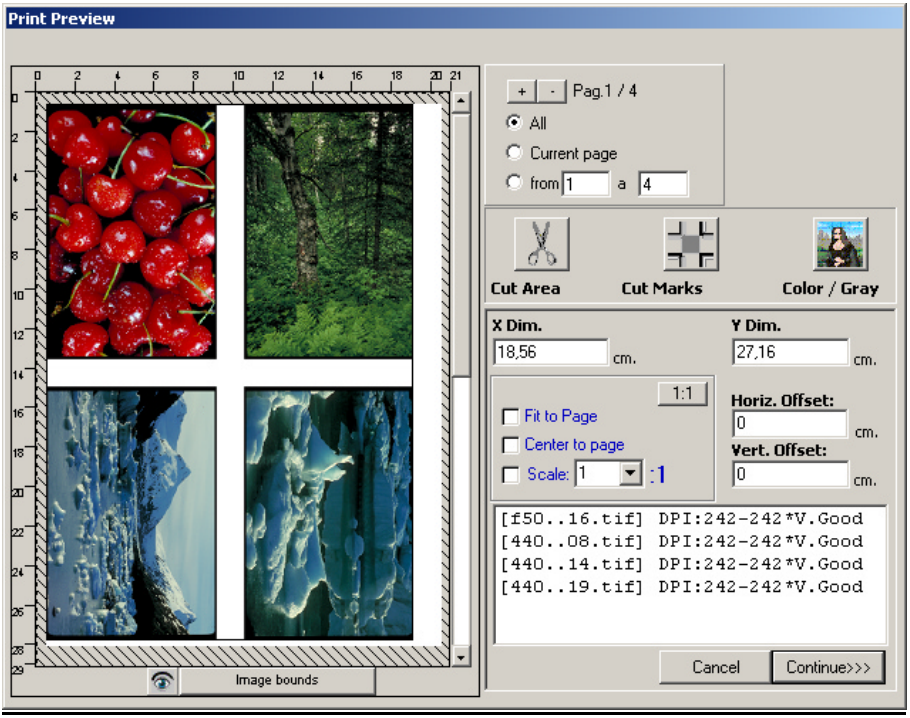
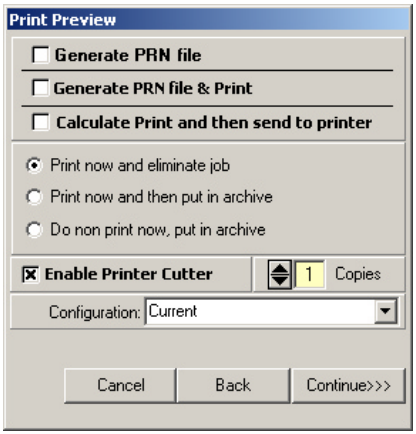


Figure 1 – The Print window

Where Multipage handling has been enabled, the panel above with the choice of the page to be printed will be shown.
Proceed by pressing the **Continue** button**.**



At this point it is possible to enable a series of additional options.

Generate Prn file: prints the job to a file instead of sending it to the printer and allows this output to be saved so that it may be subsequently sent to the plotter using **direct print** or **processes management.**

Generate Prn file & print: simultaneously saves the prn file to disk and prints the job on the plotter. Could be useful in cases where it is necessary to send the same image for printing many times and you don't want to have to re-process every time. The processing time is more or less the same as for printing, but in addition the file is ready to be sent again to the plotter or transferred to another machine for printing as a demonstration.

Calculate print and then send to printer with this option enabled, the print job is processed creating a temporary file and, only if the elaboration procedure has been successful, is sent to the printer. The file generated is eliminated after being sent, to save the file the option create PRN file must also be enabled. (The interface changes when this option is selected).

Print now and eliminate job: is certainly the function which will be used

most often, indeed it allows to process and print simultaneously and certainly speeds up the job.

Print now and then put in archive: prints and stores the print process. It should be noted that the print file itself is not stored but only the print settings used, it will then be possible to send this print job by activating it using the “PRINT IN PROGRESS” TAB.

Do not print now, put in archive: only saves the print settings and puts it in the filed print job list to then be able to subsequently send it (corresponds to the Save Workspace command).

Enable guillotine: enables the plotter guillotine (if available).

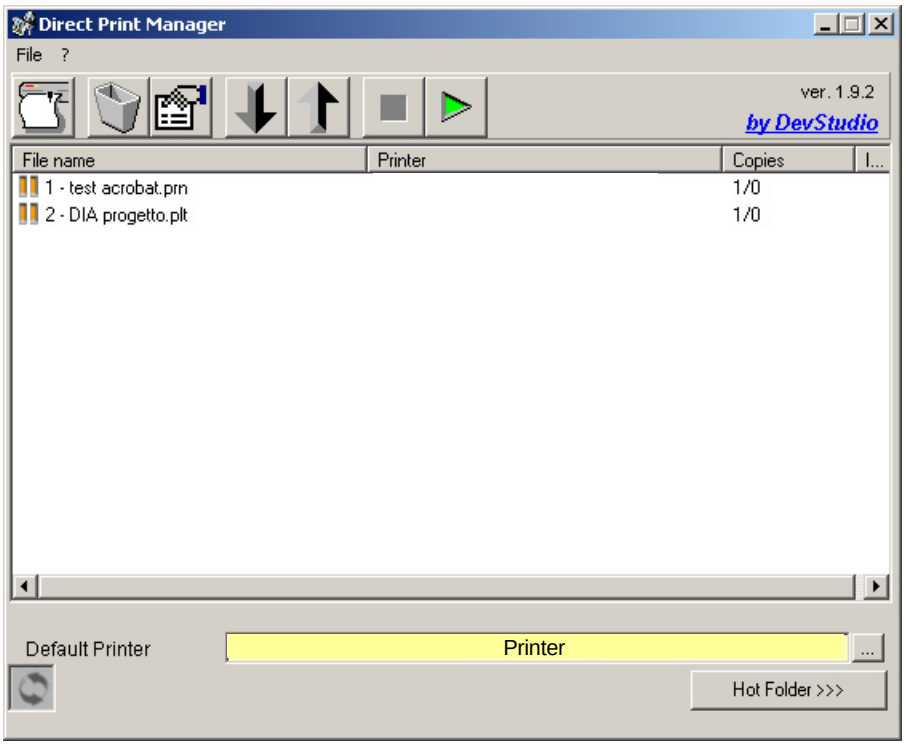
n.Copies: allows setting the number of copies to be printed, in this case, the first print job is processed and then the others are sent directly to the plotter without the need for reprocessing each time!

Configuration: allows the selection of a configuration from those previously saved prior to printing! Thus it is possible to open the program, insert the images, and then only at the end, take the time to define the print settings.

Replica print: this option is enabled only if the option (enable replica print) is enabled in the configuration menu. It is used for repeating the same file, vertically and without any white space.

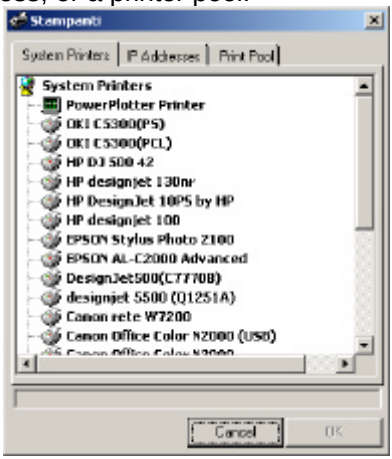
Direct Print:

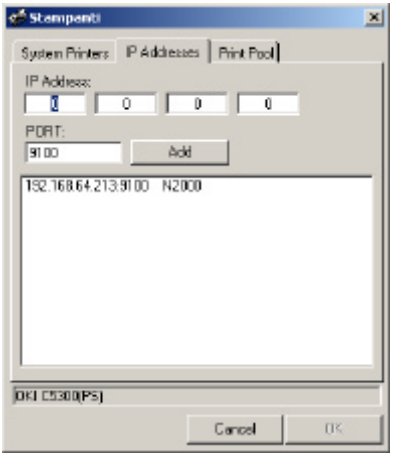
The Direct Prints command allows opening a file in print format (PLT, RTL, CRF, PRN…) and printing it in the background.
Print files are none other than processed print jobs stored to disk, and to be processed do not require the RIP, but it is sufficient to simply copy them to the plotter for which they have been processed. The user may interrupt the print job at any moment, by pressing the interrupt button in the Direct Prints window. It is possible to insert numerous images to be printed in sequence, even on other printers.

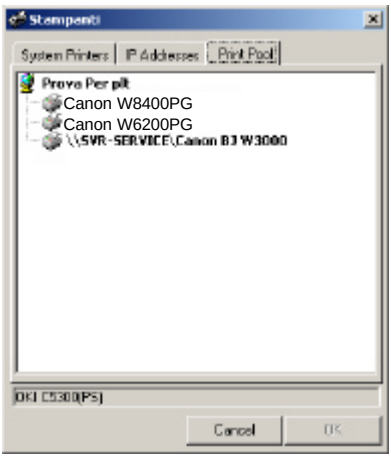


The Direct Print window

Files can be dragged directly into the interface to be inserted for printing, or by using the first button on the right, or using the File / Open File menu.
The predefined destination printer is set within the main interface by pressing the command option with three dots […]. From there it is possible to select a Windows printer from the list of predefined printers, or a direct IP address, or a printer pool.



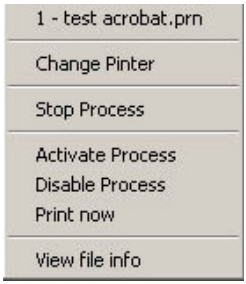




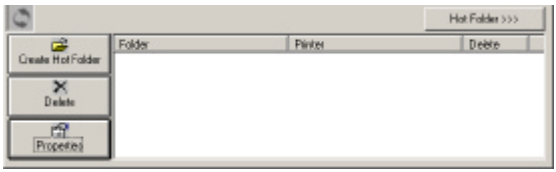
A printer pool is a collection of identical printers which are managed as if they were a single printer. If many print jobs are sent to the same POOL the

program subdivides the print load over the various printers. To create a pool, imply right click within the pool interface, select Add Pool, assign a name and then once more right click and select Add Printers, then all the desired printers must be enabled.

By right clicking on the name of the file inserted, the following list of options may be accessed.



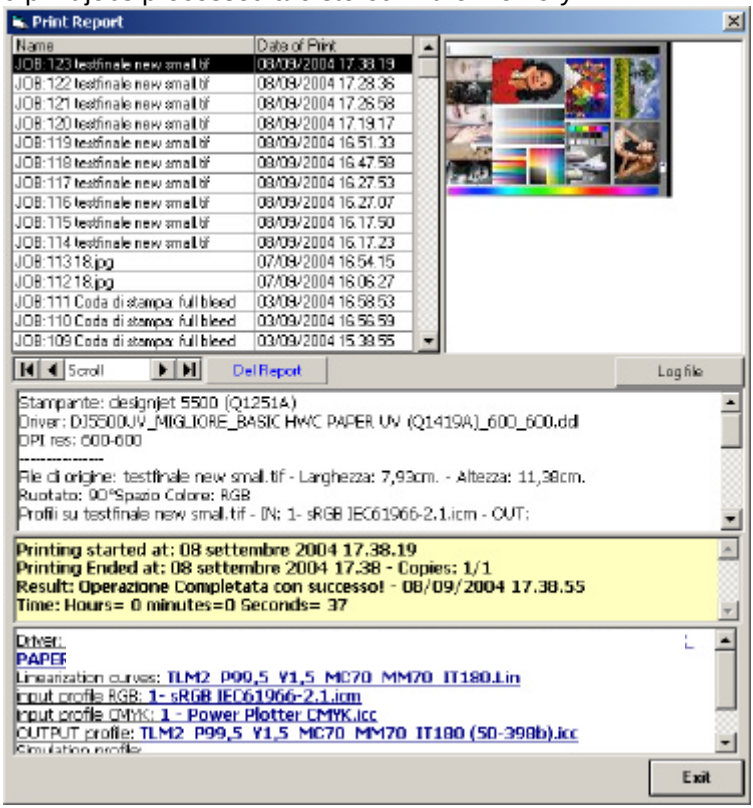
The first option summarises the file name and the print queue number.
Change printer allows the selection of a new printer as explained previously.
Stop process blocks the processing of the current file.
Activate process processes the entire print queue.
Disable process blocks the queue.
Print now executes only this print job.
View File Info shows the file information and in the case of HPGL or HPRTL files and if there is an HPGL viewer installed, a preview of the file will also be shown.
Instead by using the icon command bar it is possible to: Open a file, Cancel it, open the previous menu for the selected files, move the file up or down in the sequence, Stop the print queue, Activate the queue.
When the queue is active the symbol to the bottom left will flash.



Instead, the button to the bottom right opens the dialogue for configuring the hotfolders.
It is possible to create a series of folders to which a printer may be associated, whereby as soon as a file is copied into the folder it will be sent to the selected printer without any intervention from the user.
The first button activates the creation of the HotFolder, from this interface an already existing folder may be selected, or a new one created. Then the destination printer must be selected.
The second button cancels the selected configuration, the third opens the properties of the selected HotFolder.

Print report

The Print report command accesses the database which stores the log of the processed print jobs. From the Print report window the user may recover all the parameters and settings used in the previous print jobs. The last 200 print jobs processed are stored in the memory.


Print Report
Name
Date of Print
JOB:123 testfinale new small.tif 08/09/2004 17.38.19
JOB:122 testfinale new small.tif 08/09/2004 17.28.36
JOB:121 testfinale new small.tif 08/09/2004 17.26.58
JOB:120 testfinale new small.tif 08/09/2004 17.19.17
JOB:119 testfinale new small.tif 08/09/2004 16.51.33
JOB:118 testfinale new small.tif 08/09/2004 16.47.59
JOB:117 testfinale new small.tif 08/09/2004 16.27.53
JOB:116 testfinale new small.tif 08/09/2004 16.27.07
JOB:115 testfinale new small.tif 08/09/2004 16.17.50
JOB:114 testfinale new small.tif 08/09/2004 16.17.23
JOB:113 18.jpg 07/09/2004 18.54.15
JOB:112 18.jpg 07/09/2004 18.06.27
JOB:111 Coda di stampa full bleed 03/09/2004 16.58.53
JOB:110 Coda di stampa full bleed 03/09/2004 16.56.59
JOB:109 Coda di stampa full bleed 03/09/2004 15.39.55
Scroll
Del Report
Log file
Stampante: designjet 5500 (Q1251A)
Driver: DJ5500UV_MIGLIORE_BASIC HWC PAPER UV (Q1419A)_600_600.ddl
DPI res: 600-600
File di origine: testfinale new small.tif - Larghezza: 7,93cm. - Altezza: 11,38cm.
Ruotato: 90°Spazio Colore: RGB
Profili su testfinale new small.tif - IN: 1- sRGB IEC61966-2.1.icm - OUT:
Printing started at: 08 settembre 2004 17.38.19
Printing Ended at: 08 settembre 2004 17.38 - Copies: 1/1
Result: Operazione Completata con successo! - 08/09/2004 17.38.55
Time: Hours= 0 minutes=0 Seconds= 37
Driver:
PAPER
Linearization curves: TLM2_P90,5_V1,5_MC70_MM70_IT180.lin
Input profile RGB: 1- sRGB IEC61966-2.1.icm
Input profile CMYK: 1 - Power Plotter CMYK.icc
OUTPUT profile: TLM2_P99,5_V1,5_MC70_MM70_IT180 (50-390b).icc
Exit

The Print Report window

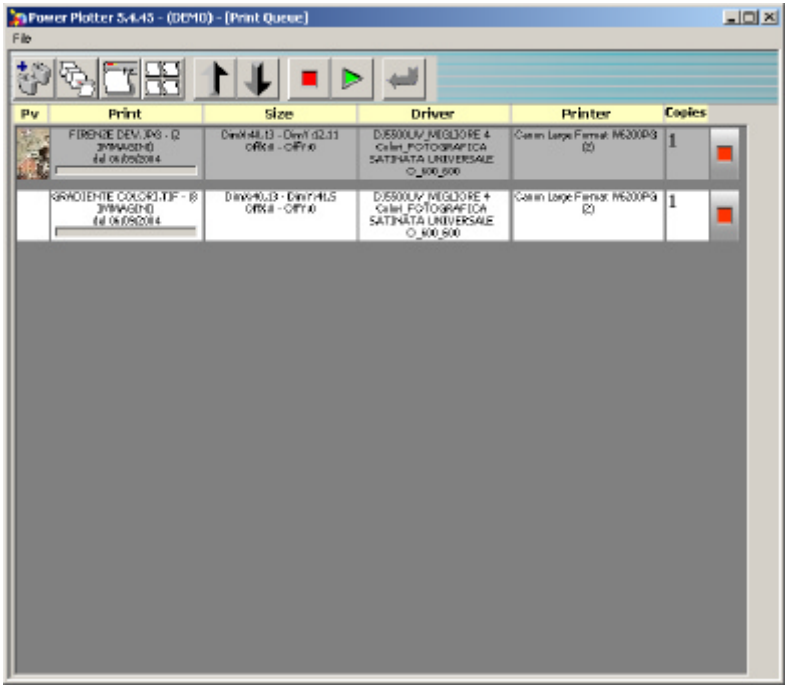
The cancel Report button eliminates the selected report from the database. The scroll bar allows moving between reports.

In the same window there is also an image preview and three panels with information on the settings used for the print job (colour correction, screen, antialiasing, etc.), the operation start and stop dates and times.

Print queues

The print queue window allows programming and sending a series of print jobs.

It is possible to create mixed print queues, where each element in the queue commands different print modes: into the queue may be placed graphic files to convert them into print format (e.g. TIFF to be converted into a PRN), files already in print format (RTL, PLT, etc.) to be sent directly to the plotter, and files in graphic formats for printing (RIP and plot).



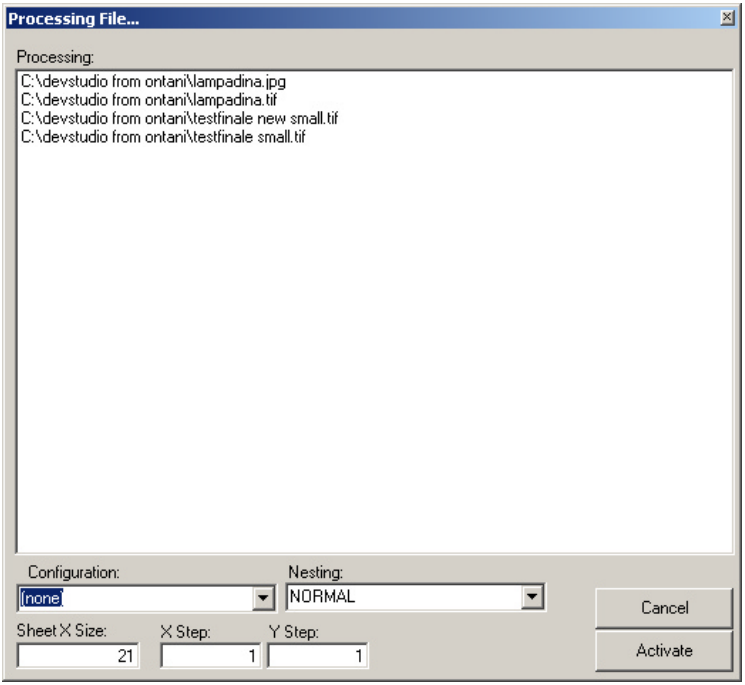
The Print queue window.

Furthermore, the power of the program makes it possible to carry out several operations (if with different destinations) simultaneously (for the moment, in the most advanced versions, up to three at a time, limited by our choice, when the processing power of the PC allows it, this limit may be raised).

To add a graphic file to be converted into print format to the queue, prepare the print job as normal (colour correction, contrast, etc.), open the Print window, set the position and dimensions, and activate the command **Place in the print queue** then the print button, otherwise one of the following commands may be selected **…archive** to put the job into a temporary archive from where it can be recovered from the **Print queue** window.

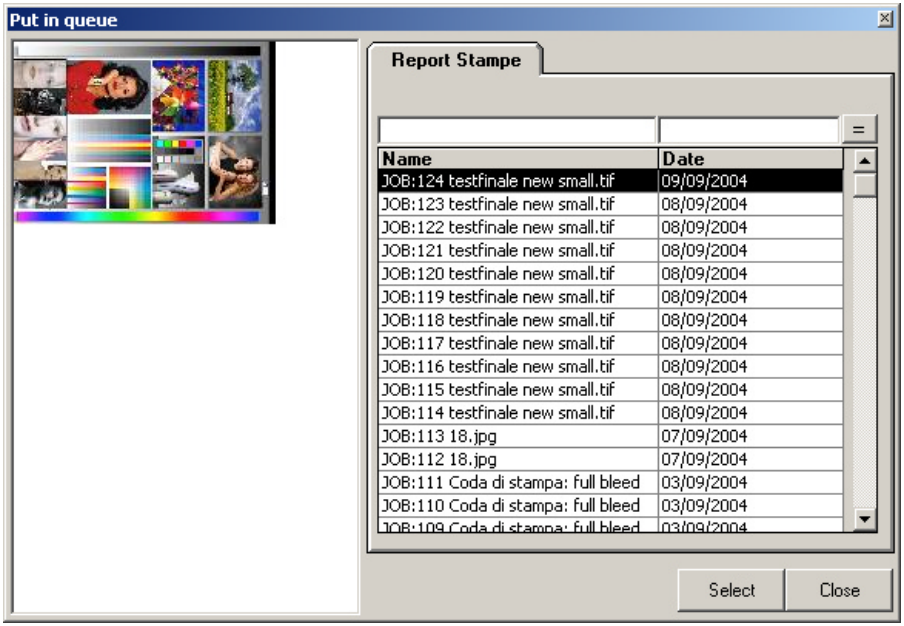
In the window we have a series of columns in which we can see:
PV: A preview image offering a brief glimpse of the print job. (By clicking with the mouse you can see the extended version of the preview).**Print:** name of the print job, or of the pre-processed file to be sent directly to the printer.
Dimensions: the dimensions of the job (modifiable by double clicking).
Driver: The type of printer driver selected (modifiable by double clicking), Includes all the driver characteristics, including the colour profiles set
Printer: The path over which the job will be sent, it could be a file, a printer, or both, in the case where the job to be printed is a pre-processed file, the path may only be a printer (modifiable by double clicking).
Copies: The number of copies which will be printed (modifiable by double clicking).

Description of the buttons:
Cancel selection: Cancels the selected jobs
Add to the queue: adds a saved job, or one of the stored print jobs or from the completed print job report.
File to be printed: Adds a pre-processed file to the print queue to send it directly to the printer.
Create print job: allows the creation of a print job starting from a list of file and a pagination type which is selected in the following dialogue window:



Move up and down: Alters the priority of the selected job within the print queue.
Stop: Interrupts the queue.
Activate: Activates the print queue and starts processing the various jobs in sequence. In the case where there are several consecutive jobs with different destinations, they will be executed together with a delay of a few seconds between one another.
Exit: exits the window and returns to the RIP interface.

Please note: Activation of the Queue Management function completely substitutes the software screen with that just described, to avoid overlapping print activities. Hence if the program is closed using the cross at the top right the entire PowerPlotter application will close, to return to the main screen use the EXIT command from the instrument bar described!



The Add to the Queue window

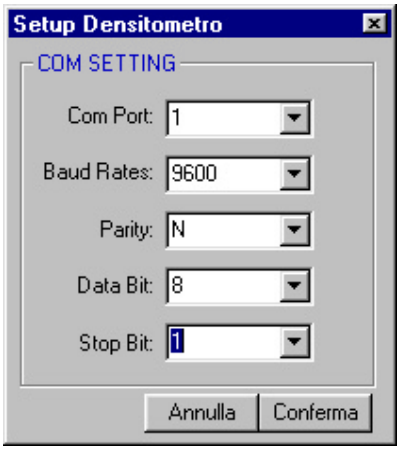
Chapter VI – Menu commands: the Tools menu

Densitometer: Setup

With a densitometer (an instrument capable of reading the density of a colour from a printed sheet) it will be possible to exploit this new menu.

The initial settings are used to instruct the computer on which port to check for the densitometer.

Using the densitometer, it will be possible to set the gamma curves of the printer used with greater precision, and hence improve the overall quality of printing.

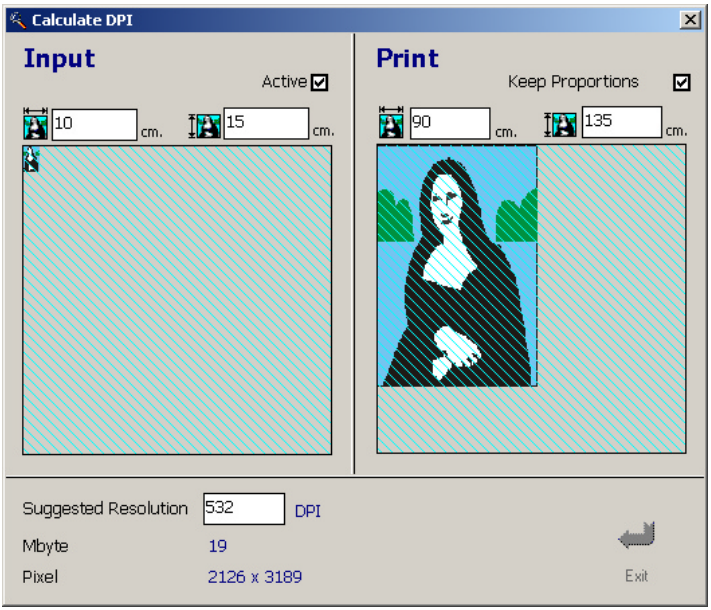


The Densitometer setup window

DPI calculation

The Calculate DPI command is used to establish the minimum resolution necessary during the acquisition of an image by the scanner so that the print quality will be satisfactory.

In the Dimension of Image to be Acquired box enter the values of the horizontal and vertical dimensions of the image it is desired to acquire. In the Print Dimensions box, enter the horizontal or vertical dimension with which it is intended to print the image.
The DPI field at the lower part of the window will indicate the resolution with which the image will have to be acquired. The size the acquired file will have in bytes and the measurements in pixels are also indicated.



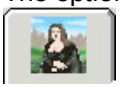
The Calculate DPI window

A useful guideline to heed when setting the acquisition is that of selecting an acquisition resolution which is a multiple of the actual resolution of the scanner. For example, if the scanner has an actual resolution of 150 DPI and the DPI calculation routine suggests acquisition at 120 DPI, it is better to acquire at 150 DPI; if the recommendation was to use 207 DPI then acquire at 300 DPI.
For the actual resolution of your scanner consult its manual.

Chapter VII – The commands tabs

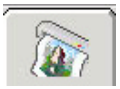
There are always a series of TABS displayed in the upper right of the screen (and also in the upper left activating the choice of printer driver) from where it is possible to make the most common and frequently used choices within the digital printing field.

The options are:

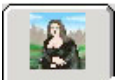
 ***Images***

Panels

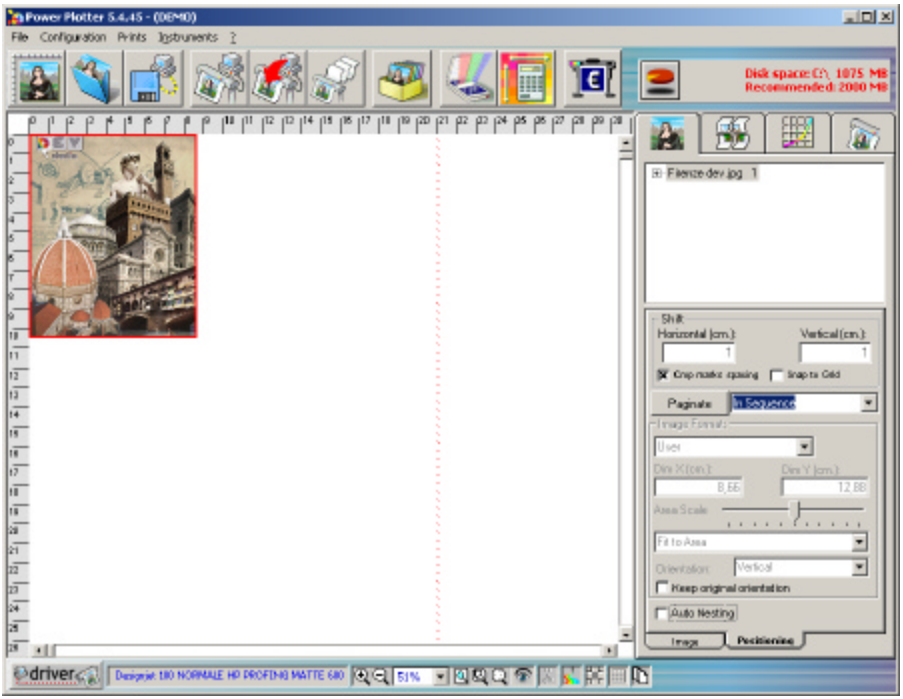
Colour management

 ***Current print jobs***

Images



Here you can set all the options in relation to the options, rotation and position of the images inserted into the workspace.



The main IMAGES window

In the large box to the right hand side you can read the list of images inserted into the workspace. For each, it is possible to open a list where the characteristics, dimensions in pixels, resolution in DPI, creation date, size in MB, colour space, and set colour profiles are summarised (the latter is the only option that can be modified here and will be described later).
The options in relation to the profiles are:

- input profile which is the description of the colour space with which

the image has been generated.
Examples of input profiles are the profile of the scanner or digital camera (if the image originates from a scanner or a digital camera) or conversion profiles between different colour spaces.

- output profile indicated in the program as paper profile which is the description of the collection of colours which our peripheral may reproduce on any given print support and allow good quality printing.
- simulation profile, which is the profile of another peripheral (for example an offset printer) which we would like to simulate, this profile is useful only when using the software to generate digital test prints.

The settings for each image are collected below.
These refer to the images selected at the time, which are highlighted in reverse video in the list and bordered in red on the workspace. Selection may be made directly by clicking on the image or the name in the list.

The **dimensions** of the image may be modified in various ways:

1. The exact measurements may be inserted in to the Dim X and Dim Y boxes (if the maintain proportions box appears this is followed automatically otherwise they are autonomously settable)
2. The resolution at which we desire to print the image may be entered and the measurements will alter accordingly
3. A value may be selected from the scale menu.

The two **Move up** or **Move down** buttons are to be used in the case where two images are overlapping, allowing the choice of which of the two will be in the foreground (entirely visible) and which will be in the background.

The **X and Y Offset** options indicate the distance of the image (in cm) from the top left of the workspace.

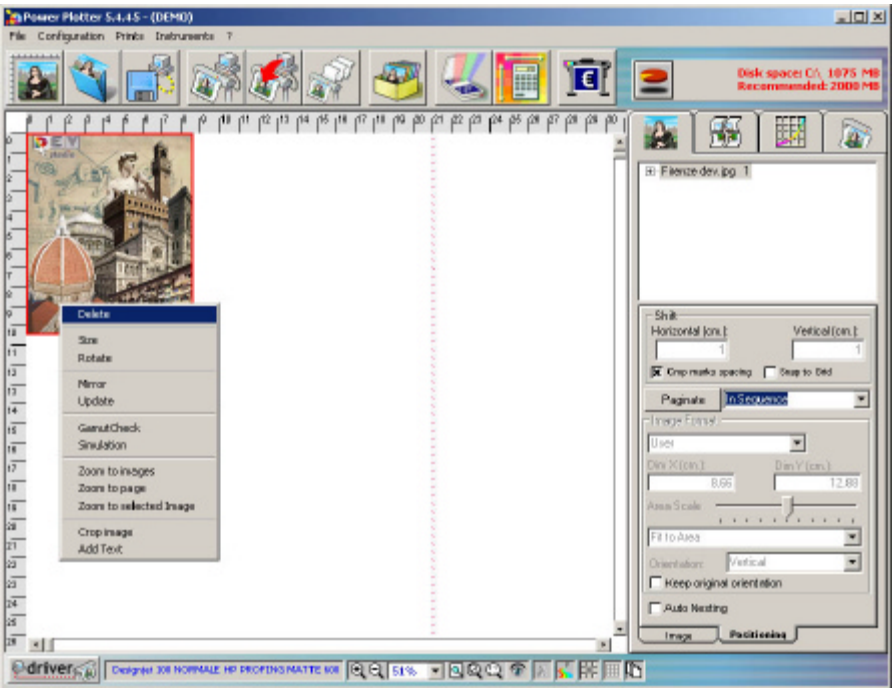
Each image may then be **rotated** in 90° steps, or (by selecting the **Mirror image** option) may be printed flipped (useful if the printing is being done on a transparent support).

The **Cancel** button allows the elimination of the selected image from the workspace.

Setting the **Fixed Width** box to a value X means that each image inserted will always have the set width and the height will be scaled accordingly.

The **Duplicate** button copies the image with the current settings as indicated in the nearby box. When the images exceed the width of the sheet they will automatically be sent to the top.

Alternatively, the mouse may be used to move the image on the sheet (left button) and for resizing it (right button).
Indeed, right clicking on an image accesses a series of actions some useful, already present in the right hand column, others not so.



Those already present are
Cancel: eliminates the image (alternatively the **CANC** button on the keyboard may be used)

Dimensions: allows resizing the image by drawing on the handles which appear on the sides.

Rotate: rotates the image clockwise in 90° steps.

Mirror: flips the image (for mirror image prints).

Those additional are:

Update: reloads the image view.

Gamut Check: When it is activated, the viewing of the colour profiles allows viewing on the screen which areas of the image contain colours which are not reproducible by the printer and which will then be substituted with the nearest colour. The areas in question will be in Red.

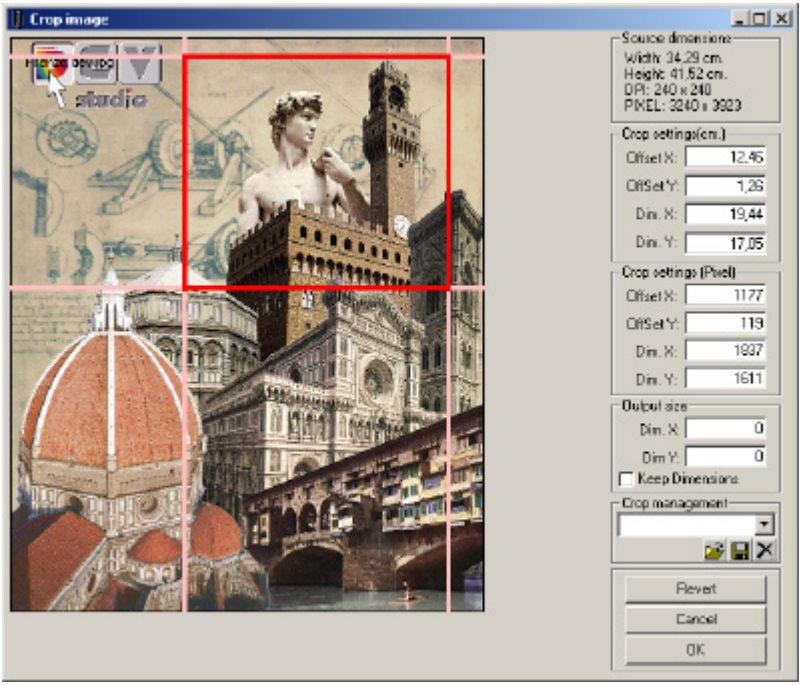
Simulate Peripheral: show on the screen the colours as they should appear in print.

Zoom to images: alters the viewing window so as to show all the images simultaneously.

Zoom to print area: alters the viewing window so as to show all the print area.

Zoom to selected image: alters the viewing window so as to show the selected image at maximum viewable enlargement.

Crop image: With this command it is possible to drop a piece of the image and re-place it on the workspace. This operation can be done by hand, using the mouse by clicking and tracing around the desired area, or by moving the red border guides. Or it is possible to insert the desired crop window values an final image dimensions. If this crop action must be reproduced on other files with similar dimensions, it may be saved so that it may be saved in future by reselecting it. The following window is opened:

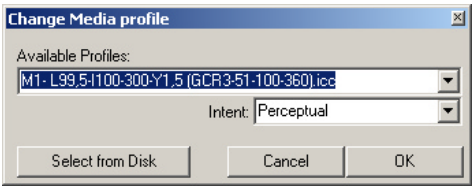


By inserting a name and pressing the save button, this particular crop is memorised, so that it may be reloaded (using the open button) and applied to other images.
Or it may be activated as an automatic crop, this particular function allows opening a file and automatically applying a crop, if this file corresponds to he measurements (in pixels) of the predefined mask.
For example the image in the figure is 3240 x 3923 pixels and a crop window of 1837 x 1611 pixels has been set, displaced horizontally by 1177 pixels and vertically by 192 pixels with respect to the top left corner. If this setting is saved and activated as an automatic crop (see later in the status bar settings) each time an image of 3240 x 3923 (or 3923 x 3240) pixels is opened, it will undergo this crop. It may prove useful when opening scanned files of slides with a surrounding black border, they generally have very similar measurements and even the measurements of the black borders are comparable, hence they could be automatically opened “clean”.

Independent individual image profile handling

The three profile control options in the images list may be used to autonomously set the colour profiles for the various images.
When the name is **Default** the profile used will be that set in the section dedicated to it in the **DRIVER column** (see the following chapters).

The selection is activated by right clicking on the option to be modified.



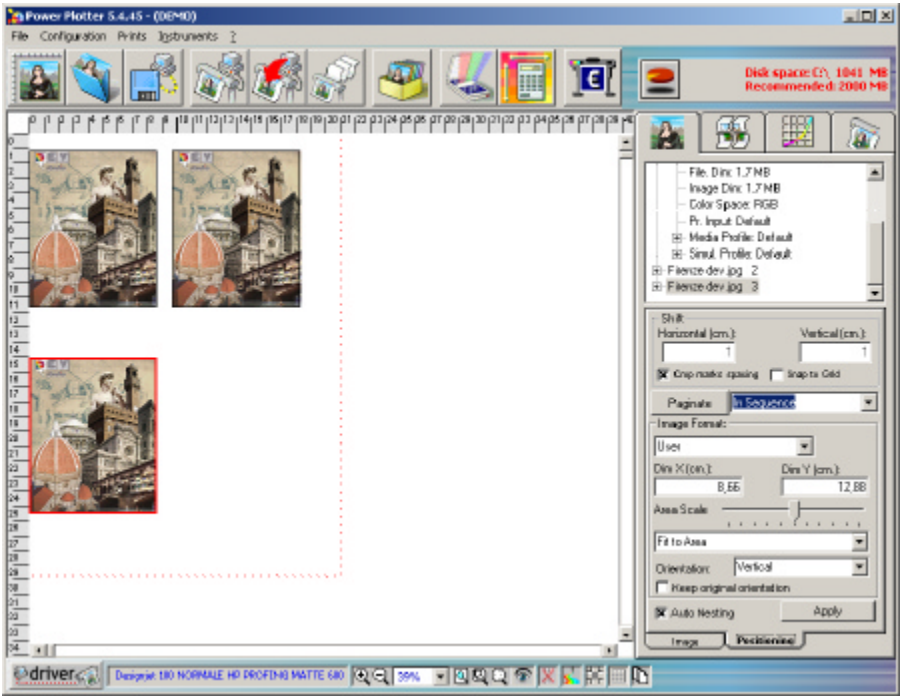
This allows inserting images with different origins and printing each of them correctly (setting a different suitable input profile for each image),

or a different output profile may be selected for each image to see which better simulates the paper used,

or another different simulation profile to see the effect our image would have printed on different peripherals (for example an offset printer, or another plotter).

Positioning

Towards the bottom right, next to the image option there is a second TAB denominated positioning**,** from there it is possible to set other options for the management of the workspace.



A series of parameters are configured which will automatically be used in image insertion.

The two Shift items indicate the distance (in cm) from the previous image at which the new image will be inserted. The check on **Crop marks spacing** sets this measure to the minimum required to enter the crop marks between the images.

Snap to grid allows moving the images along the virtual grid created by the image spacing guides.

Paginate: here there are various options:

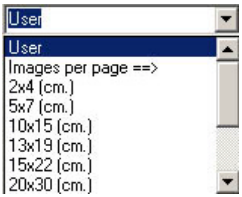
In sequence: inserts the images according to the sequence that were inserted in the workspace and does not change the orientation currently applied to the single image.

DigiTrim: with this algorithm, the program will try to arrange the images in the workspace so as to optimise the crops by the automatic guillotine produced by Fotoba ®. In this case, it will also select the orientation best suited to place together images with similar sides.

X/Y AutoDigitrim: in this case, the program considers the crop by the automatic guillotine X/Y of Fotoba® which makes a sequence of horizontal and vertical cuts.

According to the situations, it may be useful to use one of these systems; the choice will become easier with experience.
To apply the changes, select **Paginate**.

The **Image Format** field provides useful features to optimise the arrangement of images in the workspace.
To enable it, select **Auto nesting**, in this way you will disable other features present in other program sections.
In the first drop-down list you can select among various options:



User: it indicates that an image format differing from those provided was selected.
Image per page ==>: allows selecting a number of images to be optimised in the selected sheet layout. The following list shows standard image formats.

In the two boxes below you can set the desired image sizes.

The **Area Scale** bar allows reducing or enlarging the measures set above.

The selection in the following drop-down list indicates:
Fit to area: the images will be inserted into the area defined by the

measures, so a 20 x 40 cm image adjusted to a 10 x 15 format will become 7.5 x 15 cm, keeping the original proportions and the full image.
Cut to area: the images will be cropped to the selected format as follows: the image is reduced to make it as close as possible to the final one, then excess sides are cropped.

The **Orientation** field allows selecting whether we want all images to be **horizontal, vertical** or if the most suitable orientation is to be selected automatically…

The **Auto Nesting** checkbox enables all these features.

The **Apply** button applies the changes made that have not brought to an auto pagination, such as changing the spacing between images…

Panels

The image tiling, integrated in the program, allows printing in sizes that are larger than those permitted by the plotter print area. It is useful in that it automatically divides the image into several pieces having the plotter size with the crop marks that allow the subsequent reconstruction (this is an optional feature in the program Lite version).

To better understand the use of the tiling feature, let's analyse a practical example. Let's suppose we want to print a 2.5 metre x 2 metre image.

In the **IMAGES** section we will have to enter Dim Y = 200 cm and automatically, we will have Dim X = 242 cm. At this point, the DPI panel will indicate the file resolution at those dimensions. In the example in figure 1, the resolution is 42 DPI. For output resolution values, the same indications given for normal printing apply with the exception that in this case, due to the large printing dimensions, and the need of viewing these products from large distance, lower resolutions – around 40 DPI or less – are admissible.

At this point, let's go on to the Panels TAB . Here you can select the number of columns and lines (if any) into which you want to divide the image. You can do that in manual or automatic mode.
Press the **Generate Panels** button to automatically divide the workspace into strips having a width suitable for the plotter.
In manual mode, you can press **Lines** or **Columns** to display guides that indicate how the image will be divided. The number of columns must be increased until a fixed distance between the lower guides and the plotter span is reached (90 cm in models A0, 126 cm in 50-inch models, 150 in 60 inches etc., based on the machine margins).
The area below indicates the panels that are suitable and those that are not, with a check or a cross mark**.** If you want to cancel the division into panels, simply press **Reset Panel** or restore the vertical and horizontal panel number to **1**.
You may also move the guides manually to obtain panels having a different

length, or to crop into specific points of the image, since the program usually creates equal panels: for example, in our case (84cm wide paper) we may have 6 equal panels, each 68 cm wide and 1.22m long (even though the length may be left total as we can print images of almost any length but it is easier to have a sheet that is not too large).
Two more boxes are used to set the horizontal and vertical overlapping of the panels that will be created. A one centimetre overlapping means that due adjacent panels will share one centimetre of the image. It is always useful to use the overlapping for easier siding of the panels.

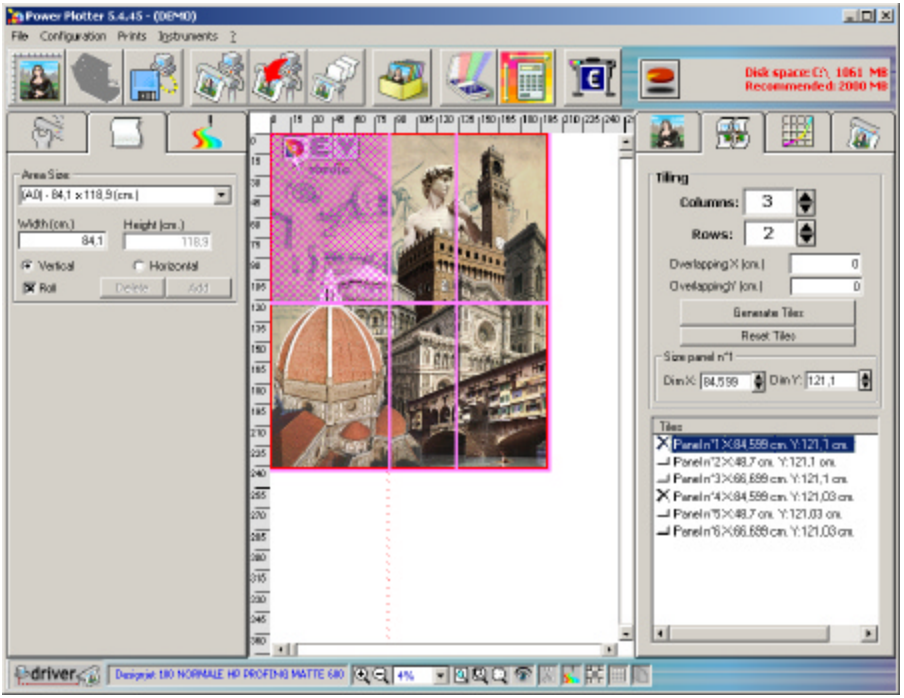


Figure 1 – The Tiling window

As shown in Figure 1, the single lines or columns can be sized differently (for example, to crop the print job in an important point of the image, in the example the Florence Cathedral dome), but as it can be seen there was a mistake: the first column is too large and is marked with a cross next to the Pann. wording No. 1 (and no. 4). In this case you need to suitably resize the

column as follows: you may enter a value compatible with the selected sheet size in the Dim. X box, or you may click on the vertical dividing line and drag it so as to reduce the panel.

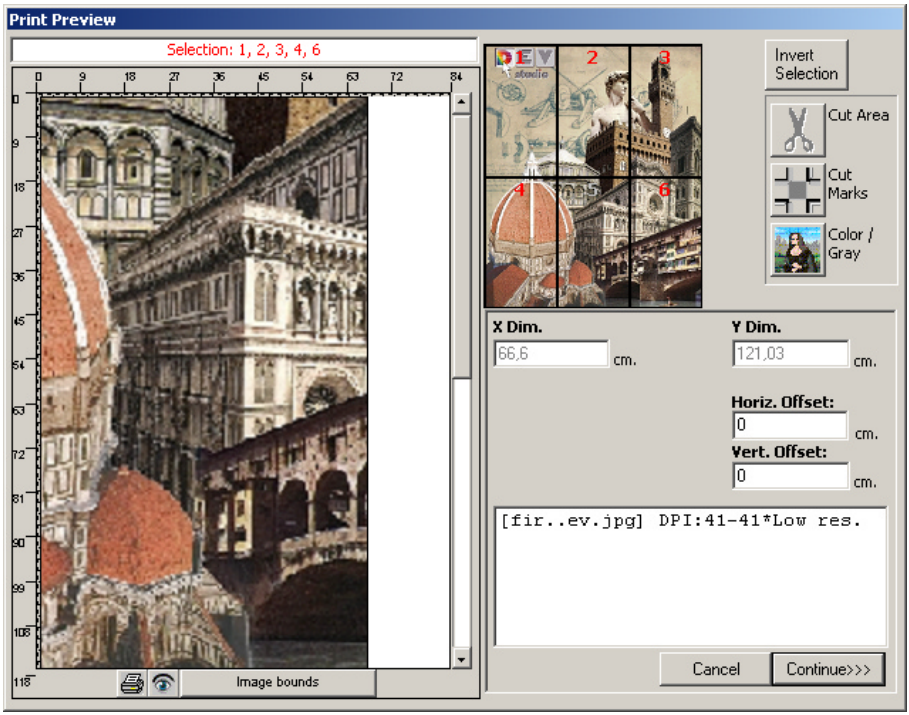


Figure 2 – The Panel Print window

Once you have made the required selections, you can proceed to printing as with normal single images. The difference is that we may select the panels to print and those not to be printed by clicking on the small image on the right panel. As you can see, the selected panels are 1,2,3,4 e 6, and this is shown in both the top line and directly into the thumbnail; in fact, the selected panels are highlighted by a **Red** number whereas the excluded ones are marked by a Grey number**.**

Once you have made your selections, the print jobs will start in a sequence or you may select among the usual print options (archived print, print to file…).

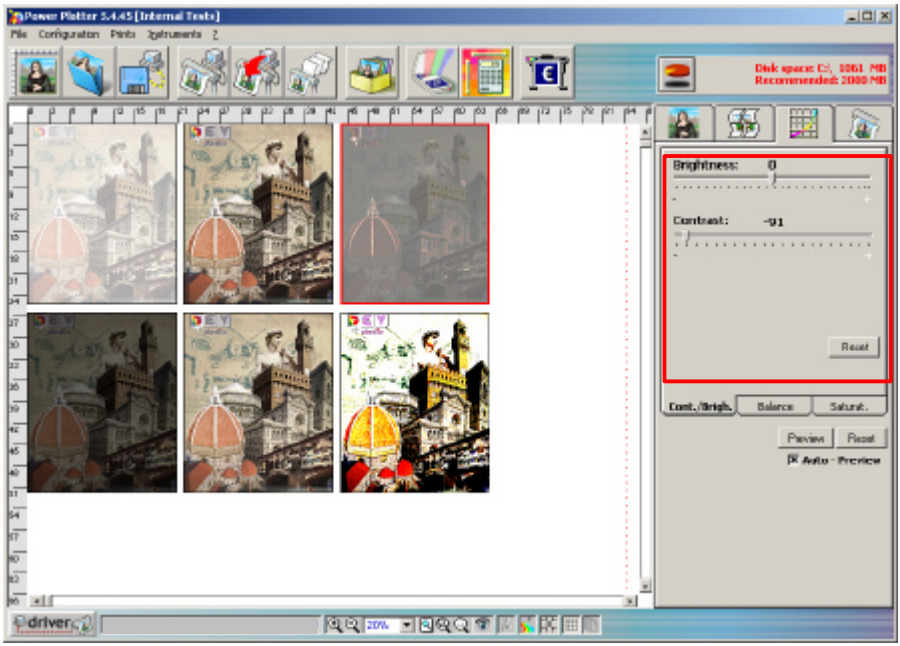
Colour management

In this section you can change the image colours independently.
The **Preview** button displays the current change status.
The **Reset** button resets all values (for all colour correction tabs, for the selected image).
The **Autopreview** checkbox displays the changes as they are being made.

Here there are three main sections that allow controlling the various parameters:
These are:

Contrast/Brightness
Balance
Saturation/Hue/Brightness

Contrast/Brightness

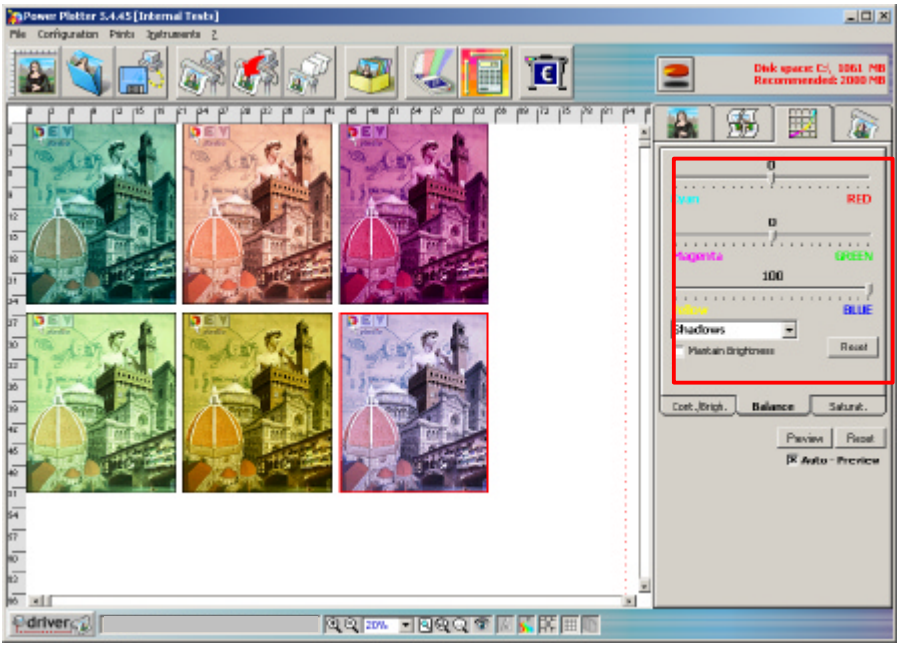


The Contrast (–100 to +100) and Brightness (–127 to +127) values are controlled for each image.
The actions are purposely exaggerated in the example.

The two central images are normal whereas the two on the left are respectively (from top downwards) with Brightness of +127 and –127, whereas the two on the right are with Contrast of –95 and +91.

The **Reset** button sets the commands in this window (for the selected image) to zero.

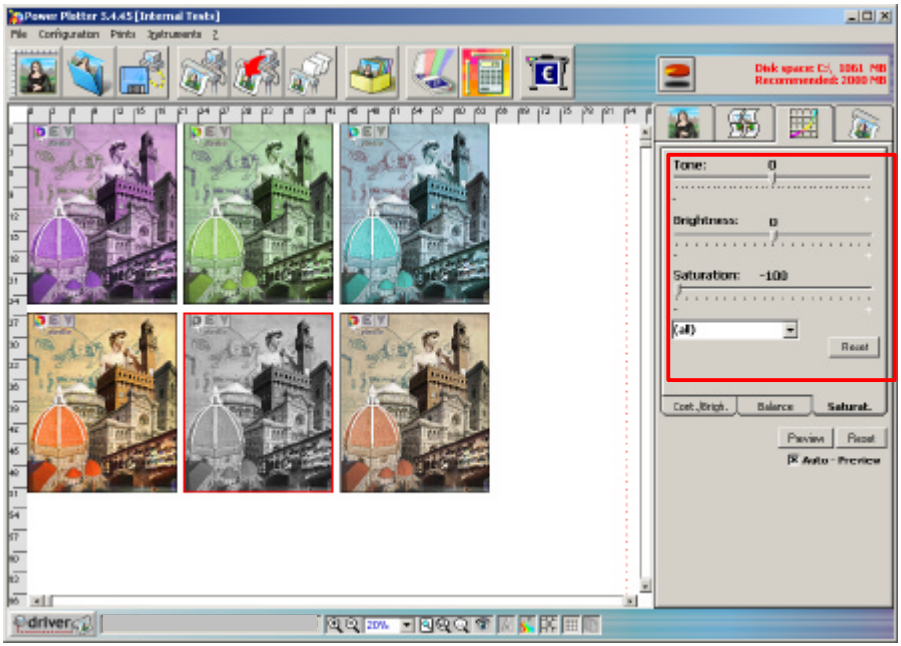
Balance



Here you can control the balance between complementary colours
Cyan (C) <-> Red (R)
Magenta (M) <-> Green (G)
Yellow (Y) <-> Blue (B)

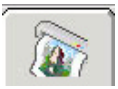
The six images represented here are all unbalanced towards the one or the other in the sequence: **C – R – M – G – Y – B**
The **Shadows** – **Half tones** – **Lights** selection allows making this change mainly affect the selected brightness range.
The **Reset** button sets the commands in this window (for the selected image) to zero.

Saturation/Hue/Brightness



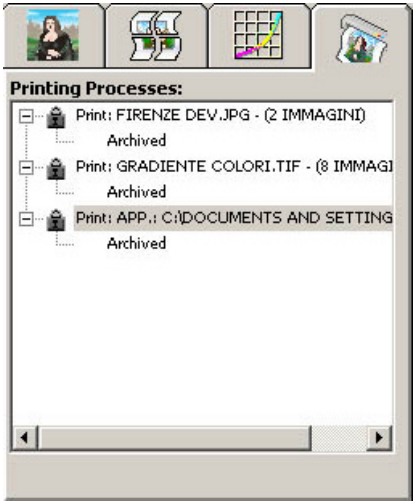
Tone: It shifts the tone around the colour sphere and ranges from –180 to +180. In the example, the first one has a value of –100, the second one of +70, the third one of +160.
Brightness: It changes the colour brightness (similar to the brightness in the other section), ranges from –100 to + 100
Saturation: It changes the colour purity. It ranges from –100 to + 100.
IN the second line, the first image has a value of +100 and very true colours, whereas the second one is at –100 and is in a greyscale.
The last image is for reference.
The **Reset** button sets the commands in this window (for the selected image) to zero.

Current print jobs



It displays the print jobs queue and the archived print jobs.

From here you can reprint archived print jobs or cancel or abort tasks in progress. You can also manage the print jobs from the application (see Appendix: *Printing from any application)*



To perform some actions on the print jobs in progress, right click on the print name to open a menu with the various options.

If the print is being processed, the available options are **Abort** and **Cancel.** The first option stops the print while the second one closes the menu and continues printing.

If the print is archived, the options are as follows:

- *Print now and eliminate job*

Starts the processing and then deletes the item from the list

- *Print now and then put in archive:*

Starts the processing and then stores the item in the list for further actions

- *Archived Print*

For reminder purpose only

- *Load*

Creates a new empty workspace and inserts the image.

- *Import*

Inserts the image in the workspace along with those already present.

- *Delete*

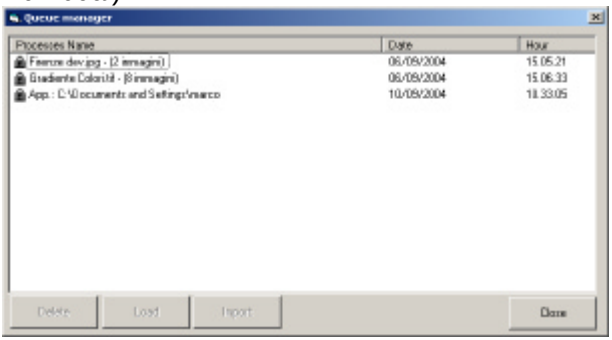
Remove the image from the list

- *Properties*

Shows a summary of image properties

- *Process management*

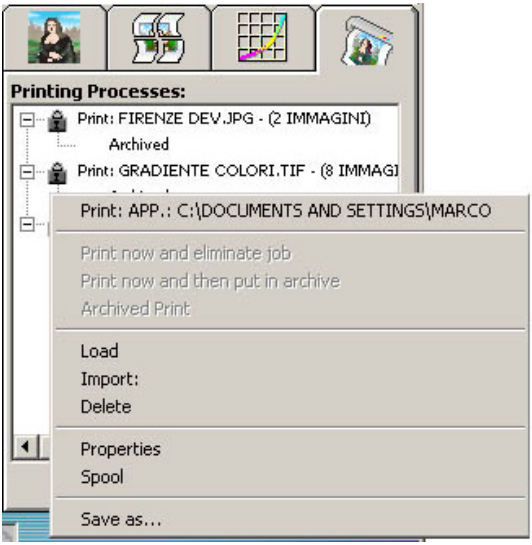
Opens another dialog box where you can manage the list of archived processes in a more complete way as you can also delete or import multiple processes at the same time, using SHIFT or CTRL shortcuts (the first key allows selecting various consecutive processes, while with the second key they may be individual).



When a print job is started from the application, it is put into this list as archived print job (if the automatic printing is set, it is entered as print in

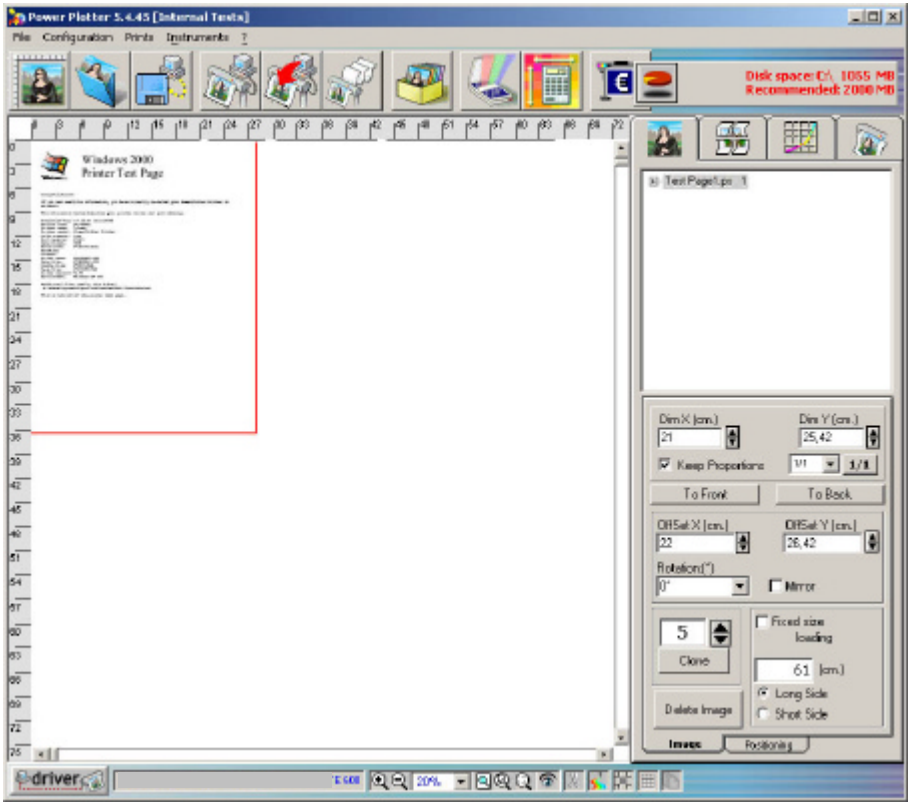
progress).
Besides the commands already described there is also:

- *Save as*
  This allows copying the postscript file generated by the virtual printer to another location on the disk.



In addition, the "**Delete"** item deletes the PS file that is put in the temporary Power Plotter folder. For images archived from within the RIP, source images are not deleted.

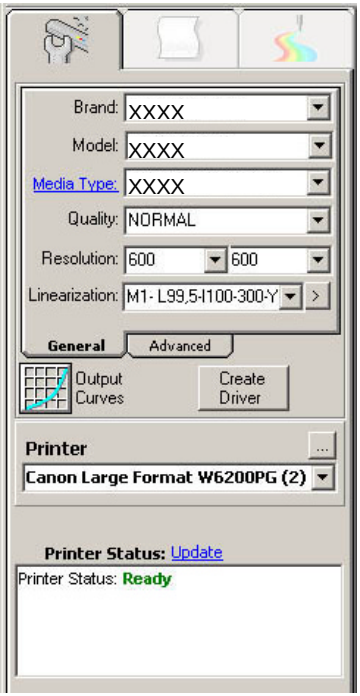
In the next page you will see how the Windows 2000™ test page printed with Power Plotter looks like.


Power Plotter 5.4.45 [Internal Tests]
File Configuration Prints Instruments ?
Disk space: C:\ 1055 MB
Recommended: 2000 MB
Windows 2000
Printer Test Page
Dim X (cm.)
21
Dim Y (cm.)
25,42
Keep Proportions
To Front
To Back
OffSet X (cm.)
22
OffSet Y (cm.)
26,42
Rotation(°)
0°
Mirror
5
Clone
Fixed size loading
61 (cm.)
Long Side
Short Side
Delete Image
Image
Positioning
driver
20%

Chapter VIII – The Printer DRIVER commands

Printer Drivers

The following commands are provided in this panel:



The Printer Drivers panel

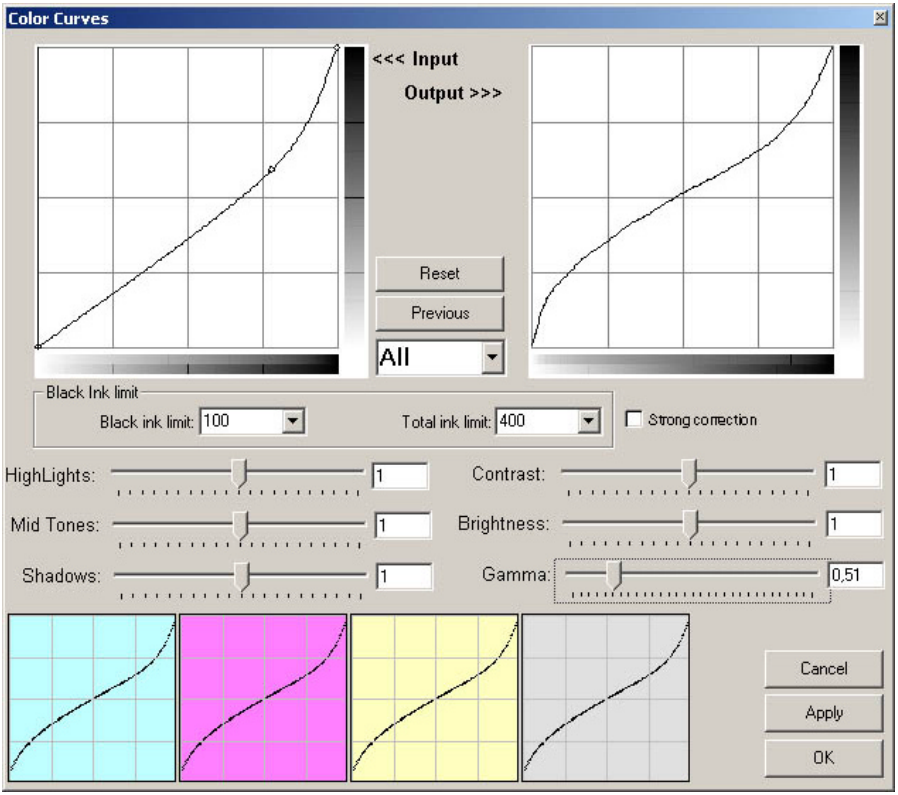
In this screen you can select the printer type and the print quality as follows: Brand – Model – Type of paper – Quality – Resolution – Linearisation.

Linearisation

Press the button next to linearisation to open the linearisation generation window (this feature will be added in future manual revisions).

Output Curves

It opens the panel to set the output colour curves:



Output Curves Panel

In the first box on the left you can manually retouch the active curve shape. The colour curve can be selected from the centre list or clicking the selected colour.

The two buttons in the middle, RESET and PREVIOUS, restore the curves to the neutral or to the last saved one, respectively.

The two Black ink limit and Total ink limit boxes allow limiting the colour amount on the sum.

In general it may be convenient to use the Total limit setting only when the print tends to be too wet. This parameter decreases the colour sum value without excessive alteration of the chromatic quality.

At the bottom, the commands on the left change the colour curves selectively in the light, half-tones and shadow areas.

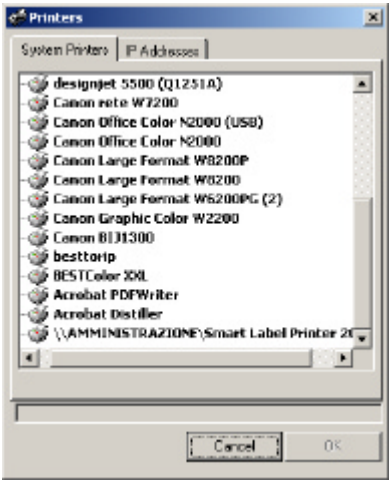
The commands on the right adjust:

Contrast: the value set multiplies the input curve
Brightness: the value set is added to the curve
Gamma: changes the curve shape as curve power.

The buttons at the bottom
CANCEL: closes the window and cancels the changes
APPLY: applies the changes and remains in the window
CONFIRM: applies the changes and closes the window.

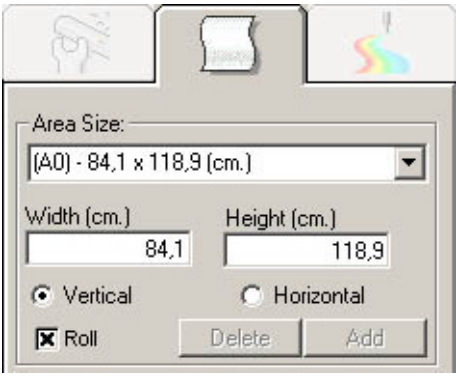
Selected Printer

The destination of the print job can be selected by browsing the printers already installed on the system. Or, you can enter the IP address of a net printer, select the relevant port (generally 515 for LPR and 9100 for Jet Direct). Using the printer on a direct IP you should also assign it a name so as to easily find what it corresponds to without having to remember all of the network IP addresses.
Using the printer name, you can use the Windows spooler that allows faster processing, while if you use the direct IP address the program will process at the printer data reception rate.



Roll / Paper Format

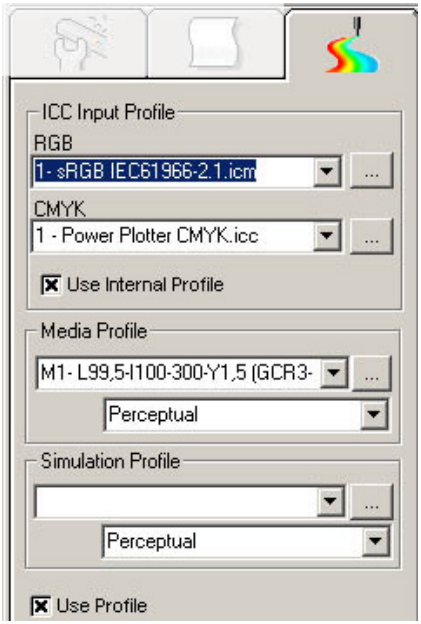
In this tab you can enter the size of the paper to be printed.
Enter the height and width values to automatically resize the area delimited by the red dotted line.
This feature is useful to immediately know the size of the paper that will be printed and it is directly linked to the panel calculation for tiling. The program does not limits the image size, even if they are larger than the paper set, but margins larger than xx cm are prompted to the user.



If the *"Roll"* feature is enabled, the *Dim Y* dimension is not considered as the area that can be taken by the image is only defined by its width; this feature is important in that it changes the output during the tiling and positioning steps. In fact, when an image is tilted on a sheet, it is divided both in height and in width, so as to allow inserting it into the sheets, otherwise (if roll is selected), it is only divided in its width.

ICC Profiles

In this panel you can set the colour profiles for optimum printing of the images on the various media.



In the **ICC Input Profile** field you must set the colour profile the print is based on. This is the source image profile and can be RGB or CMYK. To have good results, the image input profile must be known exactly so that it may be interpreted appropriately.
Default profiles are the most common ones and most programs work with them.
The **Use Internal Profile** field is used when the profile is embedded in the file to be printed; it should always be enabled unless you know that the profile embedded in the file is not valid or if you want to print with another profile.

The **Media Profile** field is used to set the colour profile for the printer on the

paper being used.
Generally, there is on for each type of paper and mode, and it is automatically associated to the driver selection.

The **Simulation Profile** field allows setting the profile of another device (printer, offset machine, etc…) to simulate using our printer.
A device simulation is generally used with Offset machines (that are in CMYK) and the files of which the simulation has to be printed are already in CMYK, so it is sufficient to enter the profile of the machine to simulate in the **ICC Input Profile / CMYK** field.

The list below is used to set the method of simulation of the print colour, if some colours cannot be perfectly obtained by the printer.
Perceptual is best suited for **photographs** as the global effect is kept as even as possible.
Relative/Absolute Colorimetrical tries to use the exact image colours, where possible (suited to **simulate other devices** with colour space more restricted that the current one).
Saturation tries to use the closer colours and, where not possible, it uses the most saturated colour (suitable for **graphic prints** with solid colours, and without considerable shading).

To add a profile to one of said windows, the Advanced Mode must be enabled. To this end, select **Configurations** / **Program Preferences**, select **Viewing** and select the “Advanced mode” box. You will be prompted for a password; enter power plotter, confirm all windows; at this point, you will see a small button with three dots next to each profile box.
Press to scroll the disk searching for a profile; once you have selected one, it is automatically copied to the proper program folder and displayed in the relevant drop-down menu.

The **Enable Profile** field is used to enable these settings. Otherwise, it works without using the profiles and it converts the colours in the conventional way, so deviations may occur in the colours that are more difficult to render.

When **Enable Profile** is disabled, the icon above is displayed to open the black generation interface, used to convert RGB files to CMYK files directly, without using ICC profiles, but ensuring a certain control over the image quality by managing colours and black amounts (see chapter entitled: **Black management (CMY/CMYK)**.

Chapter IX – The status bar

The status bar commands

The status bar

This bar includes:

the button to access the printer driver configuration section.

A small field displaying printer name, print quality, paper type used and resolution.

The zoom commands:

The first two symbols are used to enlarge and reduce the area displayed, respectively.
The drop-down menu is used to directly enter the zooming value.
The last two buttons are used to zoom in the page to zoom the images and the selected image.

The display commands:

the open eye symbol indicates that the display is enabled; if it is closed, only the image overall dimensions are displayed. Click the icon to go to another mode. When it is enabled, it recalculates the preview of all images on the workspace and this may require some time.

The print commands:

These three icons (shown above in both on and off mode) are used to:

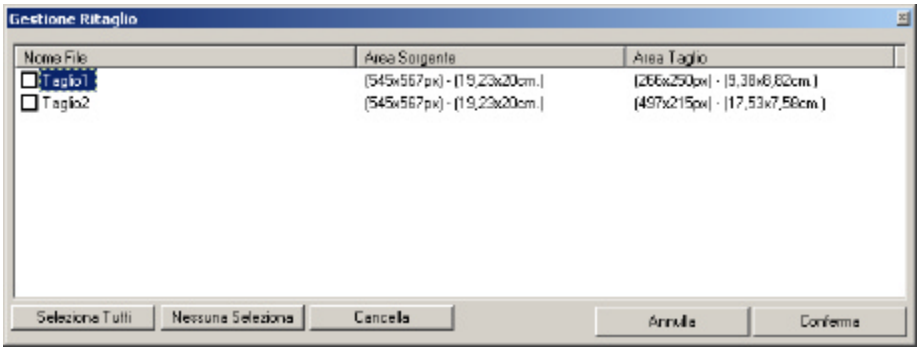
Enable and disable profile management. When on, ICC profiles are used; if not, profiles are managed by the standard black generation curves.

Access the **marks configuration** and print description. Click this icon to open the mark management interface; disable all of the items in this window to close it.

Access the **output curve management**. It is disabled when all curves are restored to the basic one (pressing the reset button).

Automatic crop:

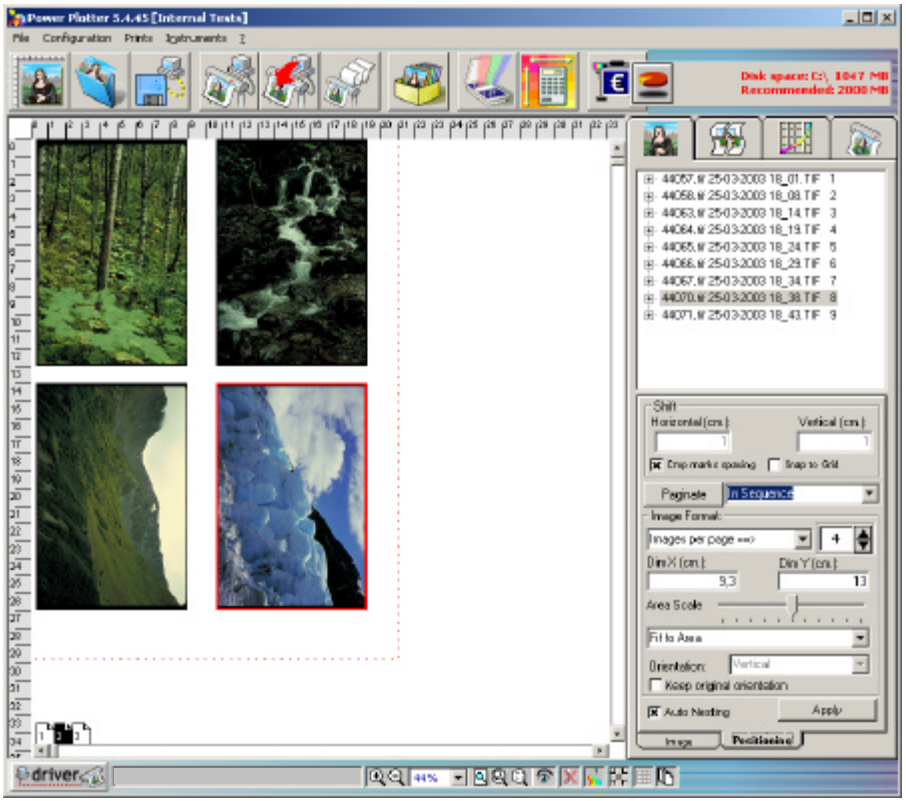
The automatic crop icon can have three states:
Disabled, images are loaded normally
Enabled, images are compared with default automatic crop sizes (this feature is described above in this manual) and, if matching, they are cropped based on the selected mask. Click the icon to enable and open the following screen:



You may select one or more crop models at the same time, which will work according to the needs.
Disabled, the feature cannot be used, this occurs when **Auto nesting** is enabled in the **Positioning** section.

Multipage management:

If this icon is disabled, the program inserts the images in the workspace, regardless of the sheet length.
If it is enabled, this means that the multipage sheet management has been enabled; this indicates that (if the sheet paper format is enabled) a second page will be created at the end of the page with the following images, and so on, to insert all images. Click the icons at the bottom left to go to the next pages. The negative (black) one is the currently displayed one.



APPENDICES

Printing from any application

Installing a Virtual Printer
Printing Documents Not Supported by Power Plotter

To print a document created with a software not supported by Power Plotter you need to convert it into a compatible format, such as TIFF, BMP, JPG, PICT, TGA, EPS, PS, PDF, HP-GL, HP-GL2 (driver hp-gl2 compatible up to the version for Designjet HP1050 plotter).

The best formats for photographic images and rendering are TIFF or JPG.
The TIFF format is the best since it maintains the best image quality (also when ZIP or LZW compression activated) and allows including your ICC profiles to keep colours matching to your screen (if your screen is correctly calibrated).
The JPG format also preserves a rather good quality (even giving some fault on highly contrasted borders) with the advantage of generating small files that can easily be stored and moved.
In both cases it is advisable to set a minimum resolution of 60 dpi (for final print size) and for photographic images with shades or gradual passages of colours; a minimum resolution of 100 dpi for rendering or also images with very small details and highly contrasted borders, and finally, 150 dpi for text on white background.

When you are working on software producing vector formats (e.g. Corel ®Draw®, Adobe ® Illustrator ®, Macromedia ® Freehand® etc.) or with DTP programs (Adobe® PageMaker® Quark® Xpress® etc.), it is preferable to export the file in eps or in pdf.
These formats preserve vector data as they are and this allows obtaining high quality on text and line objects.
To make sure the fonts used are readable, if possible you should export the file using the “Include fonts” command or convert text to curves (you should know that you will get bigger files).

When you work on software that is not able to generate eps files (e.g. Microsoft ® Word®), the best thing to do is print the document to a file using a postscript printer.
Below are the instructions to obtain this using the Power Plotter Printer driver.

Virtual Printer Description and Use

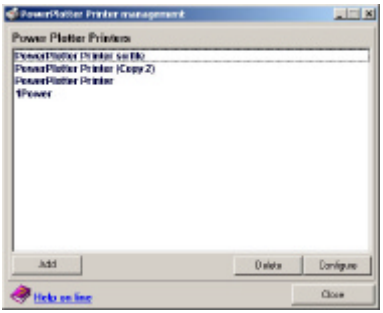
A Virtual Printer appears on your system as any other printer. Following the procedure described below you will find a new printer in the Printers folder of your system (usually called **PowerPlotterPrinter**). You may use it from any application and its output will be displayed in the RIP process list, on the main interface in the rightmost window.

Creating a PS File from Windows

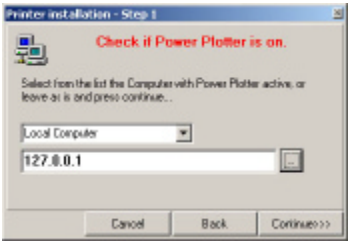
To generate a PostScript file to read with Power Plotter, using any Windows application you need to install the Power Plotter Printer using the following wizard.

The following icon is displayed on your desktop

When you start the program, the following interface is displayed:

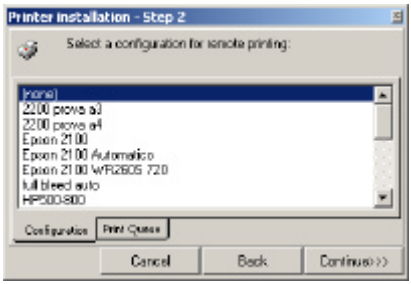


Clicking the “Add” button:

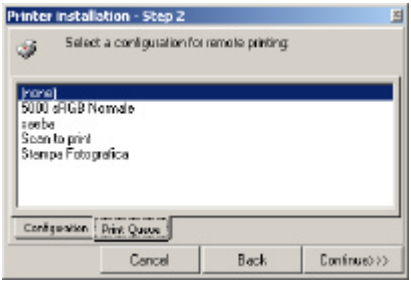


Clicking on the button with the three dots you will open a network search window; select the PC on which you have installed (and running) Power Plotter.

Or, you can type the PC name; if the PC to search is the one you are working on, select “Local PC” 127.0.0.1 (internal address, called Loop back, of the local machine) and click “Continue”.
A quick search will be run , at the end of which a window like the one below will be displayed (if any):

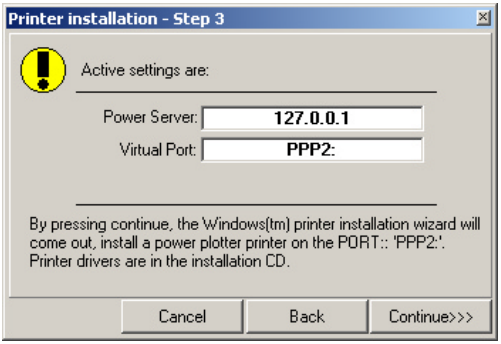


Here you will find the list of default settings (this step will only occur if you have already made settings from Power Plotter, otherwise the program will go to step 3). Now you can select one of the items (or none) and continue.
In the “Print Queues” tab there is a window similar to the previous one



where you can select the print queues managed with the server version of the program.

Click “Continue” to display the following window:


Printer installation - Step 3
Active settings are:
Power Server:
127.0.0.1
Virtual Port:
PPP2:
By pressing continue, the Windows(tm) printer installation wizard will come out, install a power plotter printer on the PORT:: 'PPP2:'.
Printer drivers are in the installation CD.
Cancel
Back
Continue>>>

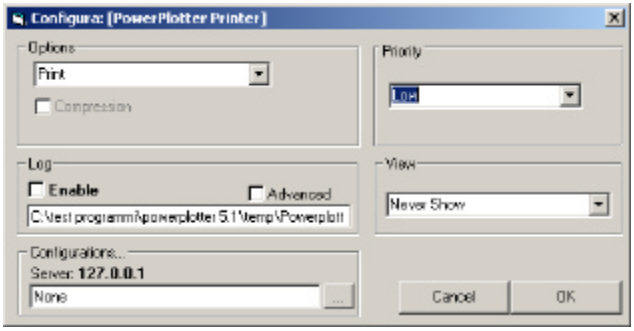
The most important part is that displaying the Virtual Port. Remember the name to use it in the next screen where you activate the installation procedure for Windows printers.

Follow the onscreen Windows instructions (these instructions might be different based on the version installed on your system) and when you are prompted to enter the printer port, select that indicated in the previous window (PPP4 in our case).
The driver file may be found on your installation CD or on your system: installation folder of your program, PostScript printers, choosing the folder relating to the Operating System in use.

You may install this procedure on any PC, using the RIP installation CD, selecting Printer Manager in the window where you select the installation type.

Each printer thus created can be set to print directly or to store the files to the RIP process queue.

To do so, open the printer configuration, and select the printer you want to configure
and then, select “Configure” to display the following window.



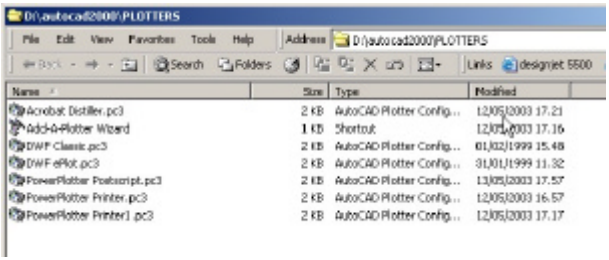
When you have set a valid configuration (in this case it is called *Nero90*) and **Print** is set in the options, your print job will automatically be moved to the active print job of the RIP and will be processed; if not, on "**Store**" it will be placed in stand-by, and finally on "**Print and Store**" it will be printed and stored in the print queue for any further printing.

If Power Plotter is set to print (directly) on a printer to file, the RIP will automatically generate a print file (PRN) in the PRN_FILE folder in the program folder (usually C:\Program Files\Devstudio\PowerPlotter\).

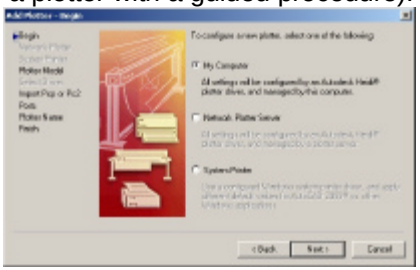
These files can be sent to a printer with Direct Print (see the relevant chapter in the program user manual).

Note for Printing from Autocad®

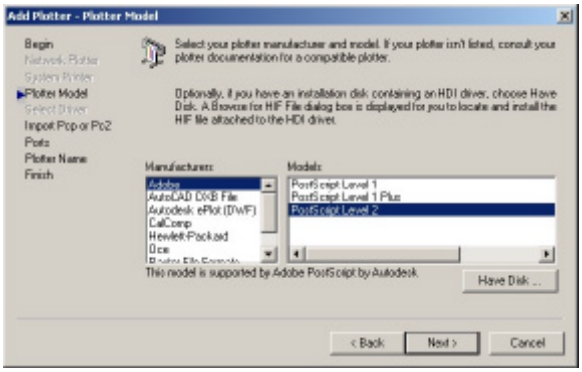
In some special cases, it is not advisable to print directly from vector programs because of a low output quality (e.g. for printers without optimized drivers or without HP-GL2 translator) or there could be problems to complete prints due to large print dimensions, driver limits or low printer memory.
For this reason it may be useful to print through the Power Plotter RIP.
In this case, the procedure is similar to that described above up to the Virtual Port PPPX creation step, after which you have to use the Autocad ADI printers in place of a Windows PS printer.
This due to a constraint of the OS Windows in the communication with AutoDesk program, so the maximum printable size is 6m and the time needed to generate the file might be very long. Using the ADI driver, the maximum size is 15m x 914mm.
To create a PS printer from AutoCAD you have to select the Plotter Manager menu


D:\autocad2000\PLOTTERS
File Edit View Favorites Tools Help
Address D:\autocad2000\PLOTTERS
Search Folders
Links designjet 5500
Name Size Type Modified
Acrobat Distiller.pc3 2 KB AutoCAD Plotter Config... 12/05/2003 17.21
Add-A-Plotter Wizard 1 KB Shortcut 12/05/2003 17.16
DWF Classic.pc3 2 KB AutoCAD Plotter Config... 01/02/1999 15.48
DWF ePlot.pc3 2 KB AutoCAD Plotter Config... 31/01/1999 11.32
PowerPlotter Postscript.pc3 2 KB AutoCAD Plotter Config... 13/05/2003 17.57
PowerPlotter Printer.pc3 2 KB AutoCAD Plotter Config... 12/05/2003 16.57
PowerPlotter Printer1.pc3 2 KB AutoCAD Plotter Config... 12/05/2003 17.17

and enable “Add a Plotter Wizard” (add a plotter with a guided procedure).

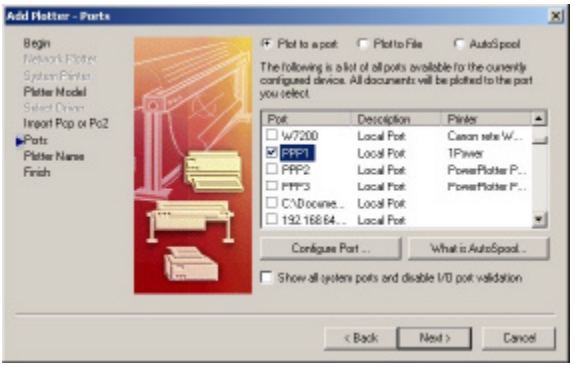


Follow the instructions step-by-step and select “My Computer” (local machine)
From the list of Models, select “Adobe → PostScript Level2”

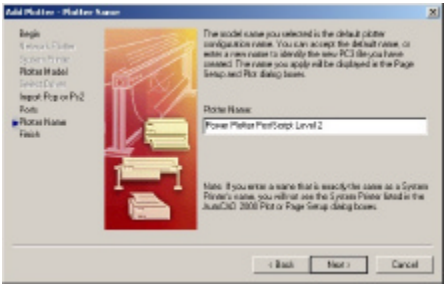

Add Plotter - Plotter Model
Begin
Network Plotter
System Printer
Plotter Model
Select Driver
Import Pcp or Pc2
Ports
Plotter Name
Finish
Select your plotter manufacturer and model. If your plotter isn't listed, consult your plotter documentation for a compatible plotter.
Optionally, if you have an installation disk containing an HDI driver, choose Have Disk. A Browse for HP File dialog box is displayed for you to locate and install the HP file attached to the HDI driver.
Manufacturers:
Adobe
AutoCAD DXB File
Autodesk ePlot (DWF)
CalComp
Hewlett-Packard
Océ
Models:
PostScript Level 1
PostScript Level 1 Plus
PostScript Level 2
This model is supported by Adobe PostScript by Autodesk.
Have Disk ...
< Back
Next >
Cancel

The next window will prompt you to import a previously configured file, but since you do not have any you can skip this step.

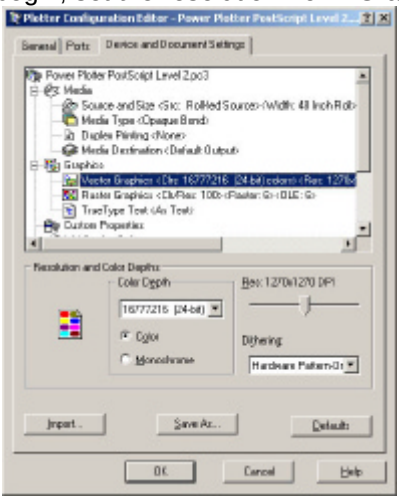
Now you have to select the file destination port.
If you wish to send the file directly to Power Plotter, select one of the Virtual Ports PPPX you have created before.

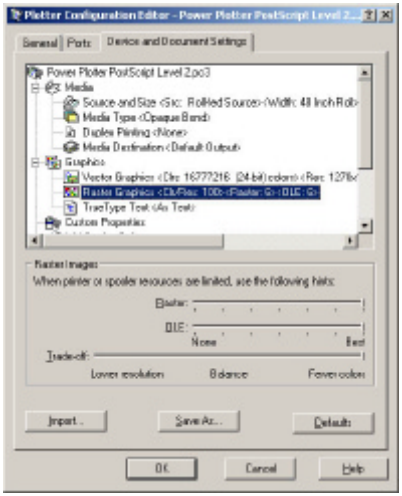


Now you have to name the printer and set its properties:



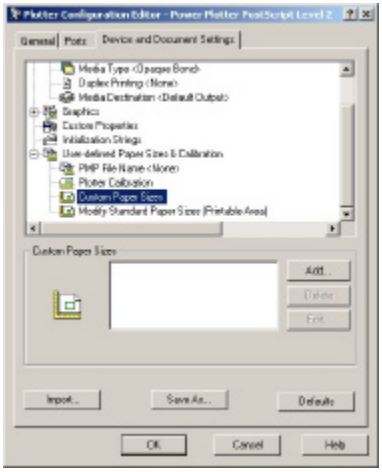
Set units and output resolution and click the “Edit Plotter Configuration”... button.
To begin, set the resolution from “Graphics”:



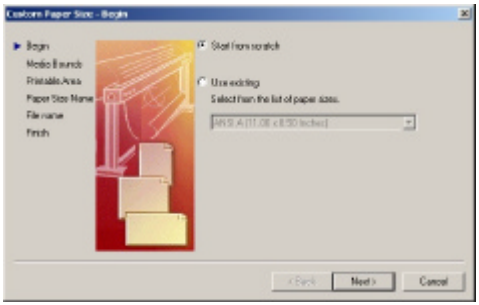


Set a high value for the colours and at least 600 dpi for resolution (or even higher if the printer supports it) on “Vector Graphics”; for dithering set, if possible, a much diffused dithering (which gives you softer images) otherwise use one of those you have.
On “Raster”, set all values to the right, i.e., maximum quality.
For a defect on AutoCAD 2000, it may happen that some images are moved to low resolution; in this case, try to close the program and repeat the print.
The second step may be setting a custom list of paper dimensions.

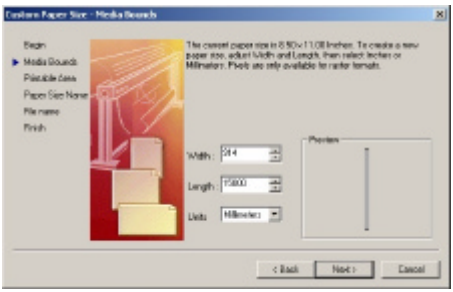
To do so, select “Custom Page Sizes” (customised dimensions) and click “Add”.

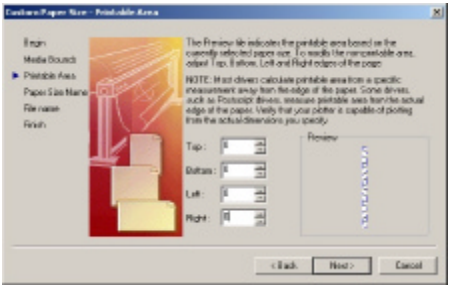


A new Wizard will start to create default paper sheets that will be displayed in the paper list during the print process. Creating a new format:

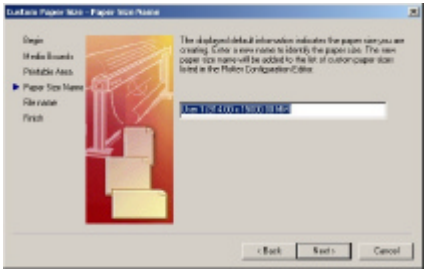


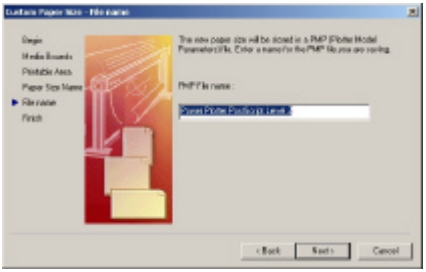
Set dimensions, width and length. There will be different limits depending on the AutoCAD version in use.



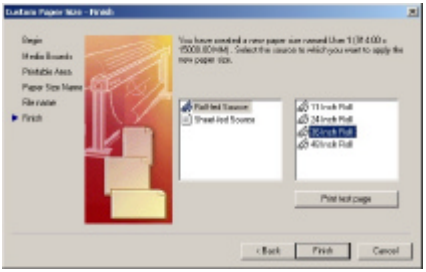


Set dimensions and borders in the two interfaces above and click “Next”. You should set the border limits to 0 as the RIP will set them automatically during the print process.
Clicking “Next” you will have to assign a name to the paper format and define a file where you want to save it (in our case it will be the file that defines the previously created printer).





Then, set the format that will use these dimensions, whether they will be displayed under the settings of “Sheet of paper” “Roll” or “Width”.



Now you can use this new type of printer driver and print your AutoCAD jobs with the powerful RIP.

Another setting to be remembered is inside Power Plotter and relates to colour settings.

In fact, Postscript files often contain both RGB and CYMK items but at present, Power Plotter only recognizes one colour space at a time. In AutoCAD, images and data are certainly in RGB, so you have to check that the image imported to the workspace of Power Plotter is RGB. If not, make sure that the image will be opened in the correct colour space using the PP configuration (Image Quality Menu in Program Preferences).
The important benefit of this operation is that if you have to print lines with black ink, you can disable the profile management and enable printing with 100% black in the Black Generation Panel. When you use the profiles, image colours will be more accurate.

When you launch a print job from Autocad, a message will be displayed indicating that the printer port is already in use. This happens as the PPPX port set on Autocad is the same used by Windows Power Plotter Printer. This is only a reminder and will not affect the outcome: you can simply

ignore it. If you want to avoid this reminder, just use a PPPX port for Autocad with a number not used by Windows.

Printing from Macintosh

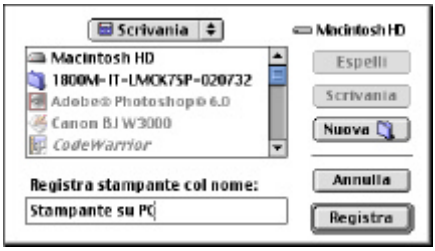
Power plotter has an internal active LPR print server that needs not be configured by the user. This feature allows printing directly on the RIP from other operating systems that do not communicate with Windows. The supported systems are: UNIX, Linux, sun and MacOs 9 or later.

Under MacOs 9 you can use the following procedure: (in MacOS X the procedure is the same). First, connect and configure the Tcp/Ip protocol of both Mac and pc in the network. Then, run the program called “Desktop printers utility” in Mac.
The first time, the following window will be displayed (or you will have to select a new one).

Here you have to select **Printer** (**LPR**) in the list, and in the drop-down menu, select “AdobePS” or “LaserWriter 8“ (only the method for enabling the printer will change in Select resources). Continuing with the wizard (clicking OK), the following window is displayed:

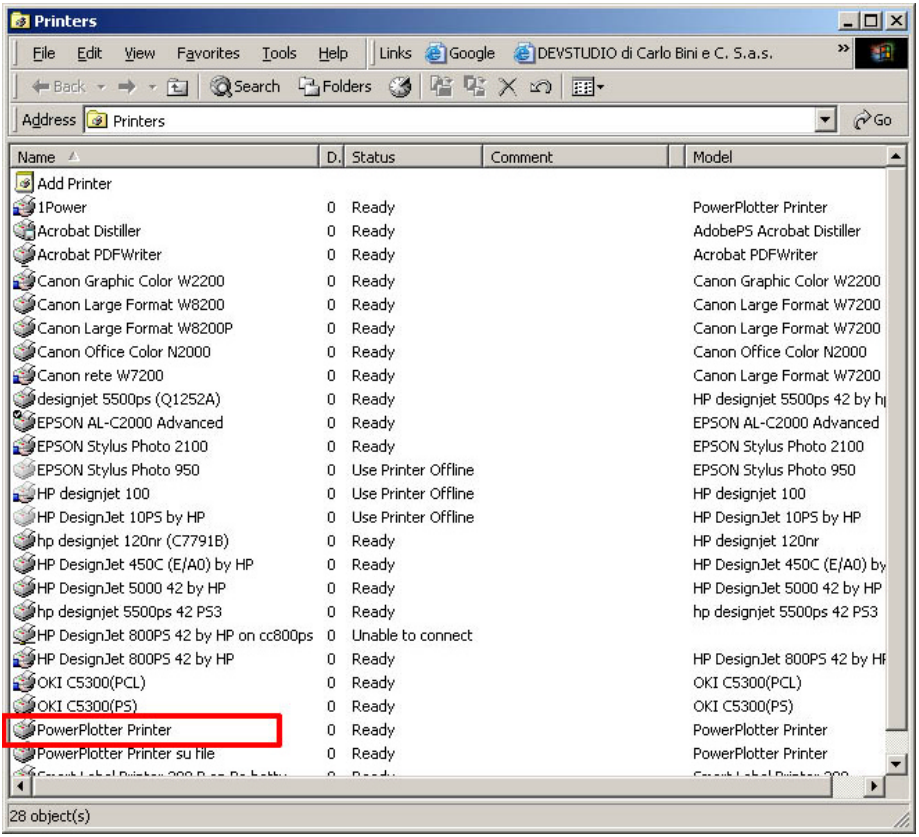
Select the printer PPD and the printing path.
The PPD is on the Power Plotter installation CD, under the Postscript printer\mac folder.
The printer path is selected from the following interface:

Enter the Ip address of the computer where you have installed power plotter in **Printer address**, under the **Queue** item, enter the name of a valid configuration previously saved on the RIP (be careful to uppercase and lowercase characters) in exactly the same way as written in Power Plotter without spaces. In this way, the print jobs launched from Mac will be printed directly without any settings saved in the chosen configuration.
If an invalid name is entered, the print jobs will be stored to the print queue and will be in standby waiting for a user's action. The "verify" button checks the address typed in.
Clicking on "ok" will display a dialogue box where you can enter the name of the desktop printer to be used to print from Power Plotter.



Now you can print on any printer supported by Power Plotter directly from any Mac program. For multipage print jobs, use the same procedure as printing with the virtual printer.
Optionally, you may print from Mac by configuring a Power Plotter printer shared by the PC using a software as PC MacLan® by Miramar® or a Windows server NT 4.0 or later with AppleTalk printer administration.
Use **PC Maclan®** to share virtual printers under MAC.
To do so, create a virtual printer on the PC where you have installed PC MacLan®.

Then, take the **POWERLO.PPD** file from the installation CD of Power Plotter, printer folder *"postscript printers\mac\"* and copy it to main folder of Mac LAN that should be under *"c:\program files\Miramar\pc MacLan for Windows 2000\"* (or similar depending on version and language).


Printers
File Edit View Favorites Tools Help Links Google DEVSTUDIO di Carlo Bini e C. S.a.s.
Back Search Folders
Address Printers
Go
Name D. Status Comment Model
Add Printer
1Power 0 Ready PowerPlotter Printer
Acrobat Distiller 0 Ready AdobePS Acrobat Distiller
Acrobat PDFWriter 0 Ready Acrobat PDFWriter
Canon Graphic Color W2200 0 Ready Canon Graphic Color W2200
Canon Large Format W8200 0 Ready Canon Large Format W7200
Canon Large Format W8200P 0 Ready Canon Large Format W7200
Canon Office Color N2000 0 Ready Canon Office Color N2000
Canon rete W7200 0 Ready Canon Large Format W7200
designjet 5500ps (Q1252A) 0 Ready HP designjet 5500ps 42 by h
EPSON AL-C2000 Advanced 0 Ready EPSON AL-C2000 Advanced
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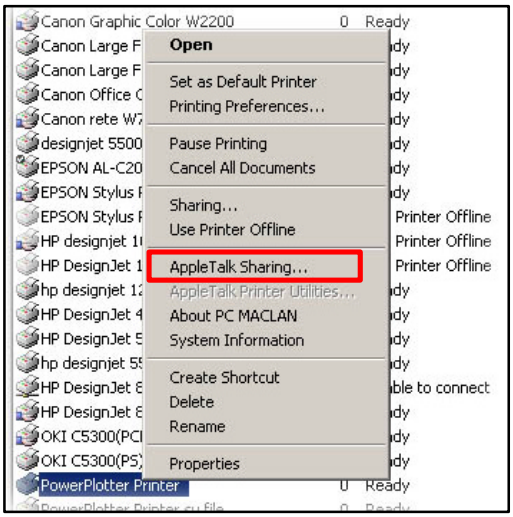
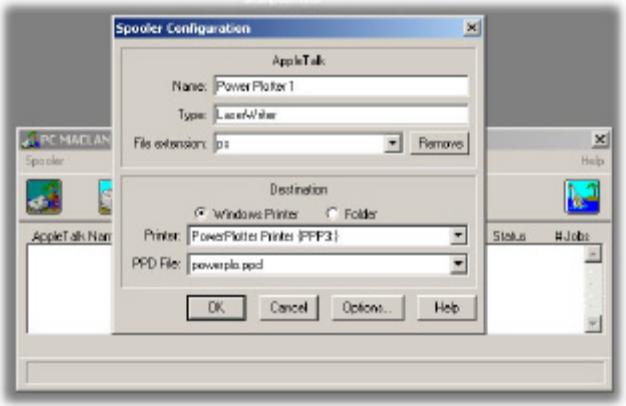
EPSON Stylus Photo 950 0 Use Printer Offline EPSON Stylus Photo 950
HP designjet 100 0 Use Printer Offline HP designjet 100
HP DesignJet 10PS by HP 0 Use Printer Offline HP DesignJet 10PS by HP
hp designjet 120nr (C7791B) 0 Ready HP designjet 120nr
HP DesignJet 450C (E/A0) by HP 0 Ready HP DesignJet 450C (E/A0) by
HP DesignJet 5000 42 by HP 0 Ready HP DesignJet 5000 42 by HP
hp designjet 5500ps 42 PS3 0 Ready hp designjet 5500ps 42 PS3
HP DesignJet 800PS 42 by HP on cc800ps 0 Unable to connect
HP DesignJet 800PS 42 by HP 0 Ready HP DesignJet 800PS 42 by HP
OKI C5300(PCL) 0 Ready OKI C5300(PCL)
OKI C5300(PS) 0 Ready OKI C5300(PS)
PowerPlotter Printer 0 Ready PowerPlotter Printer
PowerPlotter Printer su file 0 Ready PowerPlotter Printer
28 object(s)

Then, go to "printer manager" and select the virtual printer you want to move to Mac.

Clicking with the right mouse button, select "**Apple Talk Sharing**"



A PC MacLan® window will be displayed.

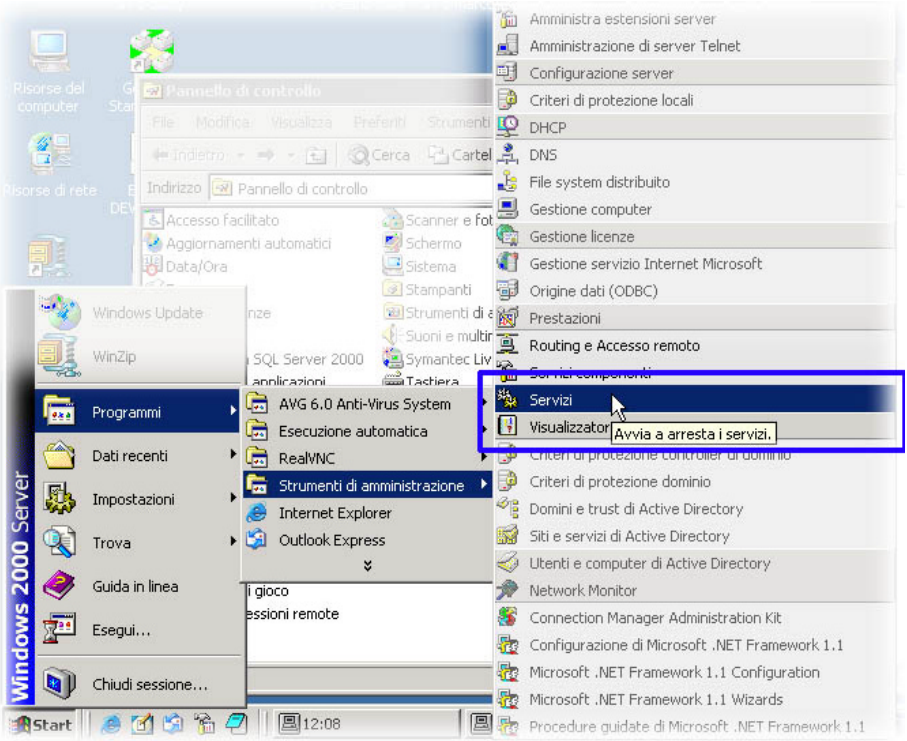


Assign a name, select the **ps** extension, check that the destination is **Windows Printer**, that the printer name is the previously selected **Power Plotter Printer** and that in the list of the PPD files there is the

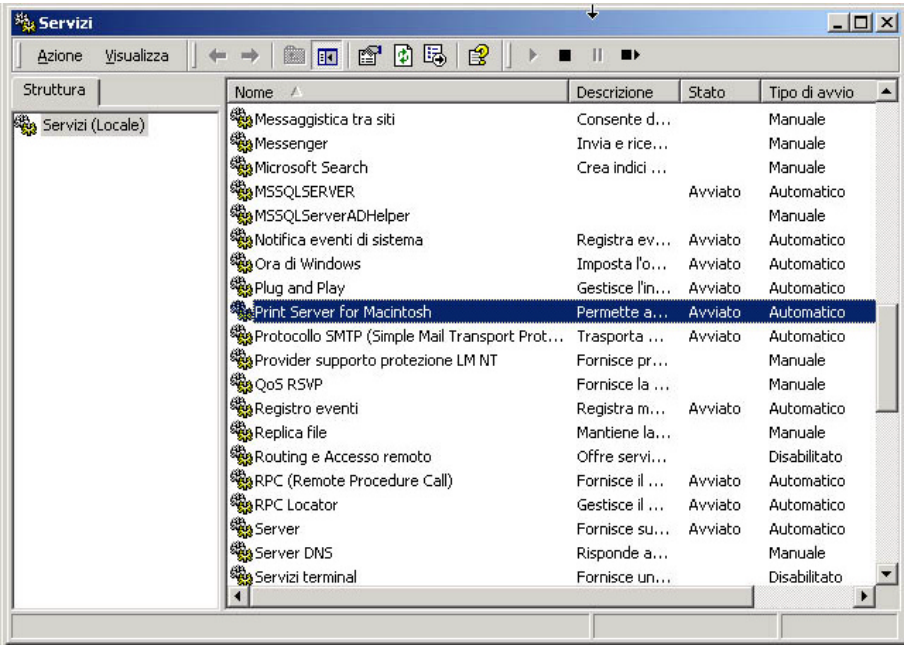
"powerplo.ppd" name and that it is selected.
Click "**Options**" and select **Send as is**.

Your printer will be displayed in the list of AppleTalk printers and will be visible in **Select resources** (for OS9) or in **Print center** for OSX. From the Power Plotter installation CD, select the PPD once again: now you can print from any Mac program directly to the RIP.

Printing by sharing Mac with NT4.0 server, 2000 Server o 2003 Server
Using a pc with Windows Server OS (version 4.0 sp6 or later), you can create a Power Plotter printer that you can share in a Mac network using the Mac LAN protocol.
Usually, in Windows Server, Mac services are already enabled; if not, enable them through the Windows Service:



Then, locate the Mac services item:


Servizi
Azione Visualizza
Struttura
Servizi (Locale)
Nome
Descrizione
Stato
Tipo di avvio
Messaggistica tra siti Consente d... Manuale
Messenger Invia e rice... Manuale
Microsoft Search Crea indici ... Manuale
MSSQLSERVER Avviato Automatico
MSSQLServerADHelper Manuale
Notifica eventi di sistema Registra ev... Avviato Automatico
Ora di Windows Imposta l'o... Avviato Automatico
Plug and Play Gestisce l'in... Avviato Automatico
Print Server for Macintosh Permette a... Avviato Automatico
Protocollo SMTP (Simple Mail Transport Prot... Trasporta ... Avviato Automatico
Provider supporto protezione LM NT Fornisce pr... Manuale
QoS RSVP Fornisce la ... Manuale
Registro eventi Registra m... Avviato Automatico
Replica file Mantiene la... Manuale
Routing e Accesso remoto Offre servi... Disabilitato
RPC (Remote Procedure Call) Fornisce il ... Avviato Automatico
RPC Locator Gestisce il ... Avviato Automatico
Server Fornisce su... Avviato Automatico
Server DNS Risponde a... Manuale
Servizi terminal Fornisce un... Disabilitato

Now, create the Power Plotter printer on the Server following the procedure already described above and install the Power Plotter Printer Manager on the Server from the Power Plotter installation CD.
The printer thus created can be shared and, having enabled Apple Print services, each Mac will be connected and you will find it in Select resources (for Os9) or in Print center for OsX.

In System 9, select the Adobe PS printer or LaserWriter and then link it to the PPD from the installation CD, in the Postscript Printers\Mac folder (to be unzipped).
In System X, open the Print center and select “Add Printer” / AppleTalk. Also in this case you have to link the same PPD.